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JOBBERS IN THE RUBBER TRADE.

THE hardware trade has become much exercised of late with regard to the position of the jobber, the feeling having become widespread that the retailer should be allowed to deal direct with the manufacturer. Already this condition prevails to a large extent in the mechanical goods trade, for which the hardware man has become a very important factor in the distribution of products. One of the mechanical goods companies, by no means the largest in the field, is known to have on its books the names of more than 6000 customers, which means that the output is disposed of chiefly through other channels than the jobbing trade. Not only does the retailer buy direct, but many large consumers fill their wants without the aid even of the retail dealer. The mechanical goods production is so widely diversified, however, and caters to so many classes of consumers, that no fixed conditions are ever likely to prevail in this trade. One and the same house will be found selling to jobbers, retailers, and individual consumers, according to the nature of the demand.

The situation is different in the druggists' sundries trade. Originally goods of this class were disposed of only through the jobbing houses, reaching the consumer through retail drug stores. Nowadays, according to the estimate of one of the oldest members of the sundries trade, 75 per cent. of the goods produced are sold by the "department stores," which, as a rule, buy direct from the manufacturer. A similar condition is true of the mackintosh trade. The number of jobbers in this line is diminishing, since manufacturers are disposed to offer inducements to large retailers to buy direct. By the way, the manufacture of waterproof garments seems to be falling more and more into the hands of small operators, working on orders from retail houses. Formerly it was the rule for rubber concerns to make up large stocks of garments, often with the results that styles changed, or, owing to weather conditions, the demand became slack, to the extent that goods accumulated until the capital was tied up to an inconvenient extent, and the garments had to be sold at a sacrifice. To-day a large business, in the aggregate, is done by small operators in the purchase of proofed cloth and the manufacture of garments to fill orders from retailers who know just what they want for immediate use.

The remaining important branch of the rubber industry—and the most important, so far as the jobbing trade is concerned—is the shoe business. The number of retailers in the United States who handle rubber footwear is estimated at 80,000 or over. Manifestly it is more convenient for the manufacturers to open accounts each with a few jobbers, in important centers, and having established channels for distribution, than to deal with such an army of retailers. To consider the question of credits for thousands of customers, each buying on a small scale, and then to ship innumerable small orders, and later to attend to the making of collections, would add largely to the work of the selling agents, with little possibility of adding to the manufacturers' profits by eliminating the jobber. While some

manufacturers of footwear doubtless may find a satisfactory demand from the retail trade, the great volume of the business is likely to remain in the existing channels, just as the sale of bicycle tires will be confined chiefly to the bicycle trade.

But whatever changes may be made in conditions as a whole, there is likely to be room, throughout our time, for the jobber of rubber goods who is equipped properly for the business and who is judicious in the choice of a location. There is an opportunity for the jobber particularly in regions too remote for retailers to be supplied promptly from the factory, besides which the jobber who is well supplied with capital may find a profit in carrying the accounts of retailers which are not large enough to prove attractive to extensive manufacturers.

THE DAY OF RUBBER SUBSTITUTES.

It is only a few years since most rubber manufacturers were loth to acknowledge that they used any reclaimed rubber. Their feeling was that if it got noised abroad that they used "shoddy" it would hurt their business. Some therefore consistently denied all knowledge of the article, even when using it largely, while others actually refused to touch it and tried to make capital with their customers out of their ability to resist the temptations before which other manufacturers fell. Such attitudes, however, did not stop the steady introduction of reclaimed gum into all lines where it could be of any possible advantage, nor were customers at all stirred when the ultra righteous stopped talking "Pará only" and acknowledged that they used Africans and a "little reclaimed stock." They looked for certain wearing qualities in the goods and really cared not one iota whether they were produced by the use of Pará or old cheese.

Now that reclaimed rubber is in universal use, and is a respectable member of the gum family, the curse seems to have fallen upon rubber substitutes—an unfortunate name, by the way, since no real substitute for rubber is to be found among them all. To-day, if the ordinary rubber manufacturer is asked if he uses "sub," he is very apt to deny it, and yet the fact is that with crude rubber at its present price, with reclaimed rubber worth as much as Africans once sold at, the whole trade is examining every substitute, gaging their merits, and using them as far as possible, as an assistant both to the crude and the reclaimed rubber. This is nothing to be ashamed of, nor is it necessarily cheapening or injuring the goods. A certain elasticity, spreading capacity, waterproofing quality, etc., are apparent in these substitutes. Wisely used they are a help. They don't take the place of rubber, but they make it go a little further in very many lines.

The failures that have come to users of substitutes are usually the result of a false estimate as to their ability to replace rubber, but with the increased knowledge that has come during the last two years, manufacturers have grown bolder and are no more afraid to use an ordinary substitute than they are to try a new grade of Africans. And it is marvelous how the trade in "sub" is growing. The day is not far distant when good substitutes will have won their way into general use and unabashed acknowledgment.

THE TROUBLE WITH THE TIRE BUSINESS.

In the course of correspondence with a large mechanical rubber concern once prominent as tire makers, a letter has come to The India Rubber World saying: "It is unpleasant to be reminded of our former connection with the bicycle business, and as we have been out of it for a year and a half, we think it would be best if you would try and forget that we were ever in it." This letter does not differ in tenor from some that have come from other rubber companies. Yet there has been no decline in cycling, and rubber tires are just as essential to bicycles as they ever were. The demand for tires came into existence suddenly and on a very large scale, and their production belonged, by right, to the mechanical rubber trade. The manufacturers were in need of new outlets, business with some of them being dull, and they naturally seized upon the new demand as a means of improving their business. But more of them apparently found reason to regret their venture in tires than otherwise.

The bicycle has ceased to be a novelty, and the market is no longer filled with a bewildering variety of tires, each claimed to possess some special advantage over all others. The bicycle tire has found its level as an ordinary everyday article of merchandise. There have been hundreds of tire patents, but in practice very few types have survived, and to-day a tire is a tire, with every buyer left to his own judgment as to what he shall pay for a pair, just as he does for a pair of shoes, there being a different grade for every price. A permanent demand is now assured, and whether prices are high or low, or whether good tires are sold or poor ones, it is not likely that whoever is manufacturing them will be found to be doing so at a loss.

It is to be regretted that the past conduct of the tire business has not been such as to yield more substantial returns to those engaged in it. A tithe of the amounts spent by some firms in making good injudicious tire guarantees, and by others in making expensive demonstrations of their tires, would have afforded good dividends, instead of a deficit. But for such methods, the list of tire manufacturers still remaining in the field might now be longer.

Pertinent to the situation here is the fact that the tire industry in Europe, so far as can be learned, generally has been conducted at a profit, though the demand has been smaller than in America. But it remains to be shown that the manufacture abroad has been developed to a higher degree of perfection than here. The difference in financial returns, therefore, must be due to some other consideration than any growing out of the factory end. The trouble with our own manufacturers doubtless will be found to have been due to an unfortunate choice in selling methods.

To the same cause, by the way, must be ascribed the trouble regarding prices in some other lines of rubber. The Mechanical Rubber Manufacturers' Association was

organized to advance prices. There is an association of druggists' sundries manufacturers, for a similar purpose. There has been more than one attempt to bring about an association in the mackintosh trade. The recent suggestion of a combination of insulated wire companies was due to the then low level of prices. Even the United States Rubber Co. is the outgrowth of efforts to stop price cutting in rubber footwear, and to-day the shoe jobbers are dealing with the problem in a new form. And it cannot be doubted that the more recent effort to consolidate the mechanical goods trade owes such favorable attention as it has received from manufacturers to the fact that prices on so many lines have been unsatisfactory. The rubber tire manufacturers have had an association, too, the main object of which was to keep prices up to a living level.

The general improvement in business in the United States has extended to the rubber trade, increasing the demand for goods and enabling manufacturers to maintain prices with less effort than in some times past, in consequence of which the price-regulating associations have been lost sight of. It would be well, while the good times last, for the rubber trade to adopt new selling methods, to the end that, should a season of depression appear again, their salesmen will be able to fill every legitimate demand for goods without descending to tactics in competition that will unsettle prices and leave the manufacturers' profits problematical.

Bicycle tires have not been improved to any such extent as to account for their manufacture being now carried on at a profit, whereas formerly they meant a loss to so many concerns in the business. The inference is unavoidable that the weakest link in the chain has been in the selling department.

RUBBER GOODS WILL NOT SELL THEMSELVES in foreign markets any more than they will at home.

THE PRICES OF RUBBER GOODS must go higher if American manufacturers co1 tinue much longer to outbid the whole world at the Antwerp auctions.

"AMERICAN RUBBER GOODS OF ALL KINDS can be sold all over Europe," was the statement of a gentleman whose experience qualifies him to judge. That he was in earnest could not be well doubted, for he had called an INDIA RUBBER WORLD man in to arrange for an advertisement that should bring him in touch with our rubber manufacturers. Another straw showing which way the wind is blowing, and a constantly increasing trade wind it is.

"THE MODERN AUTOMOBILE is a thing of steel and rubber tubes," says the *Electrical Engineer*, which holds that in the transportation field the new vehicles will work "a change as great as that from bows and arrows to breech loaders and machine guns." While rubber will take a secondary place, so far as the cost of the materials used is concerned, it is a matter of importance to the rubber manufacturer that the automobile is impossible without his assistance. The use of rubber on the bicycle is to be paralleled in the automobile, and the correspondence printed lately in our pages indicates that the new development is near at hand.

THE NEW RUBBER COMBINATION.

REPORTS of recent "curb trading" in New York include mentions of Rubber Goods Manufacturing—32 bid; 32½ asked. Same, preferred—77 bid; 78½ asked. The following paragraphs culled from the newspapers indicate the trade gossip concerning the new combination:

[From the Boston *News Bureau*, March 21.]

THE Central Trust Co. [New York] has begun to issue provisional receipts for deposits of shares under the plan for the organization of the Rubber Goods Manufacturing Co. No negotiable certificates have been issued as yet, but the promoters of the company expect to have them out before the end of the month. Enough of the present independent concerns have been secured to insure the success of the plan.

It was based on one of the Central Trust provisional receipts that Price, McCormick & Co. put what purported to be Rubber Goods certificates against deposits Peerless Rubber stock made by Price, McCormick & Co. with the Central Trust Co. The firm marketed its own receipts, which stipulated that they would deliver a certain number of Rubber Goods shares when issued.

[From the New York *Journal of Commerce*, March 1.]

EIGHT companies are understood to have agreed to go into new rubber goods manufacturing company, and final arrangements are to be completed in the near future with the only remaining essential outstanding concern. It is said by those in charge of the new corporation that the underwriting is now oversubscribed and as soon as the details can be arranged the new company will be launched.

[From the Chicago *Chronicle*, March 3.]

IT now appears that Charles R. Flint will launch his Rubber Goods Manufacturing Co., though on a smaller basis than the original plans proposed. The consolidation concern will control not more than 25 per cent. of the trade. The following concerns will form the nucleus of the new company:

Mechanical Rubber Co., capital $5,000,000, controlling the Cleveland Rubber Co., Chicago Rubber Co., and factories at Sandy Hook and Passaic, N. J., and Stoughton, Mass.; the Peerless Rubber Mfg. Co., capital $1,000,000; Morgan & Wright, Chicago, capital $1,000,000, and the India Rubber Co., of Akron, O., capital $500,000.

Efforts are yet being made to bring in some of the prominent companies which are holding out of the combination.

[From the Akron (Ohio) *Beacon*, March 8.]

THERE is a movement on foot to form a combination of the rubber manufacturing interests of the country. It was supposed that the rubber companies of this city would be included in the deal, but from the statements of the various officers it would appear that only the India company will be included.

[From the Cincinnati *Enquirer*, March 9.]

AKRON, Ohio, March 8.—F. A. Wilcox, of the Akron India Rubber Co., stated to-day that the Akron concern will be included in the new rubber combine. The promoters are hard at work, and it is said the deal is a go.

[From *The Wheel*, March 16.]

SEVERAL people very prominent in the trade were in New York early this week, and one of them who ought to know assured *The Wheel* that the sale of several large tire concerns to the new rubber trust was a fact. [The same paper hears denials that any of the companies at Akron have gone into the Trust, except that some stockholders in the India Rubber Co. have put in their stock.]

HIGHER PRICES FOR RECLAIMED RUBBER.

THE advance in the cost of reclaimed rubber is of no small importance to manufacturers, since its consumption has become nearly as large as that of crude rubber. There are innumerable grades of the reclaimed product, each of several mills turning out material covering a wide range of quality. In addition to their so-called standard grades, each producer is prepared to fill orders to meet any special demand made by consumers. Under normal conditions the following average prices have prevailed for certain grades of reclaimed stock:

"Standard" is a term which was applied originally to the product made from domestic rubber shoe scrap, without the admixture of any other stock. In recent practice, however, the "standard" grade sold by one producer may differ from that of another, in proportion as imported stock is included, or according to the care devoted to the production. The price, in a normal market, has been 8 to 9 cents.

A lower grade of material, produced from stock including hose, packing, imported old shoes, etc., has sold at 6 to 8 cents.

"Proofing stock," used for waterproof goods, is made with more care, and has sold for 1 to 1½ cents higher than "standard."

Higher grades are sold by each of the leading reclaimers under their respective private trade names at from 13 to 20 cents.

The product from unvulcanized rubber scrap has sold usually as high as 30 to 35 cents.

"Friction stock" has been quoted at 40 cents.

Since the advance in the price of scrap the reclaimers have been compelled to advance the price of their products, recent quotations for "standard" ranging from 12½ to 15 cents per pound. Manufacturers report that they have been asked as high as 20 cents for grades formerly offered to them at 13 cents, and 25 for stock quoted ordinarily at 15 to 18 cents. In the present unsettled condition of the market it is impracticable to quote prices more definitely. Prices of different reclaimers vary somewhat on grades nominally the same, and different quotations may be made by the same firm, based upon the size of the transaction and other considerations.

The reclaimers say that, as they have not advanced the prices of their products in keeping with the highest price of the stock used, manufacturers should not expect prices to decline with the first weakening in the scrap market. In attempting to protect their customers as far as possible, they have been doing business on a smaller margin of profit of late, which fact they think should be taken into consideration by the manufacturers who want to see prices go down as rapidly as they recently went up. Reclaimers for some time past have declined to contract for future delivery, due to the uncertainty in the market for their raw material.

NEW GERMAN SUBMARINE CABLES.

THE proposed direct German-American cable, mentioned in The India Rubber World for March, is declared by managers of some of the existing lines not to be needed as far as the present amount of business is concerned, but Germany seems determined to establish lines of her own, not only across the Atlantic, but in other directions. The Turkish sultan has granted a concession to German subjects for a cable 200 miles long beyond Constantinople, on the Black sea coast, which is an indication that Germany is looking to the establishment of telegraphic communication with China and other portions of the far East where she is seeking trade.

HEAVY ADVANCE IN RAW MATERIALS.

SOME of the mechanical rubber companies have notified their customers of another revision of discounts, the effect of which will be to advance prices somewhat. One manufacturer points to the following advances in raw materials during the past few months as justifying higher prices for manufactured products:

Materials.		Last Summer.	Recent Prices.
Fine Pará rubber	per pound	95	1.04
Reclaimed rubber, standard	"	8½	13
Zinc	"	4½	5
Lead	"	4	4¼

Naphtha, largely used by the firm in question in making cements, could be bought at 8 cents last summer, since which time it has advanced successively to 9, 10, 10½, 11, and 12 cents.

Sulphur, while sold lately at lower figures than during the war with Spain—when its importation was interfered with—is selling now for more than at this time last year.

The talk of a combination in whiting leads the rubber trade to expect an advance in this material.

Cotton goods used by rubber men have advanced since last summer about 10 per cent. A cheap grade of sheeting has advanced from 3¾@3⅞ cents to 4½ cents per yard, and some other grades proportionately.

IS THERE TO BE A BICYCLE TRUST?

A PLAN for combining the leading bicycle manufacturers, on which A. G. Spalding has been at work for several weeks, seems more likely to succeed than attempts made by others in the past. He is supposed to have the coöperation of such important manufacturers as Pope, Gormully, and Coleman, and it is claimed that ninety-day options have been obtained which cover 90 per cent. of the present output of wheels. It is proposed to capitalize the trust at $50,000,000, the stock to be handled by the Mercantile Trust Co., of New York. Manufacturers generally are reported to favor consolidation, sales of their properties to be made for cash, but the idea is not relished by material men, supply houses, and jobbers. Some of these suggest that a bicycle trust can succeed in controlling the trade only securing complete control of the production of materials. While the trust would hardly affect the extent of the demand for tires, it might have an important bearing as determining by whom this demand is to be filled.

THE TRUE INWARDNESS OF TRUSTS.

FROM "BOOTS AND SHOES WEEKLY."

TRUSTS do not spring spontaneously into existence, as some people may suppose.

What seems to be an epidemic of Trusts all over the country is really no epidemic at all, but the work of a lot of very smart men who are styled promoters. These men are not in the slightest degree interested in the question of dividends, neither does it make any difference to them whether the Trusts they form last one year or ten years. Their business is to form the Trust, float the stock and pocket their commission, which may range all the way from one hundred thousand dollars up to three or four million dollars.

A good many very able business men have been fooled by these oily-tongued promoters, and a good many other able business men are likely to be fooled before the bottom falls out of the Trust business.

THE CONDITION OF THE RUBBER SCRAP MARKET.

SALES of old rubber shoes are reported to have been made, early in March, at 9½ cents per pound, for carload lots—the highest point ever reached. Long after reclaimed rubber came into use 3 cents was the ruling price for scrap, and 4 cents an extreme figure. As the demand increased, and shoes came to have an assured value, speculators entered the market and were able now and then to control stocks to an extent which afforded them a profit. For the most part, however, prices of old shoes have been determined by the supply and demand. The market ruled at about 4¼ cents just prior to February 1, 1898, on which date the reclaiming works of the United States Rubber Co., at Naugatuck, were burned, causing the loss of large stocks of old shoes and some reclaimed rubber. The price of scrap at once went up, for the reason that the United States Rubber Co. were obliged to order from outside grinders to an unusual extent, creating a demand for which some of the mills were not well prepared. The sudden buying of scrap which followed, on an important scale, caused an advance to nearly 5 cents, from which a recession was made with the appearance of the spring collections and the annual shutdown of the rubber shoe factories. It was not long, however, before there were indications of another advance, which continued almost without interruption until within the past month. It is at this period that prices usually decline, and the present year has proved no exception, but the future of the market is full of uncertainty.

The following table may prove of interest, showing the range of prices of old shoes, for carload lots, for twelve years past:

Year.	High.	Low.	Average.	Year.	High.	Low.	Average
1887	5½	4½	5	1893	5⅛	3⅛	4
1888	5¼	4⅛	4¾	1894	6	4	5
1889	4¼	3¾	4	1895	5¼	4	4¾
1890	4¼	3¾	4	1896	5	4	4½
1891	4¼	3	3⅝	1897	5	4	4¼
1892	3⅛	2⅝	3	1898	6½	4¼	5½

The opinion is expressed in the trade that the recent unprecedented high prices of rubber shoes have not been due to speculative influences, for the reason that speculators would hesitate to buy at the quotations which have prevailed for some months, with a view to holding stocks for a further rise. Undoubtedly large profits could have been made by holding scrap bought nearly a year ago at 4 and 5 cents until the price reached 8 or 9 cents, but this, it is claimed, was not done. In answer to a question as to who has profited from the rise in scrap, it is suggested that it must have been the first sellers—*i. e.*, the original collectors or those who sell to them. Certainly the dealers, as a rule, have not been benefited, since the profits on the turnover of a carload are not larger when prices are high than when they are low, while the investment is much greater and the risks from a possible decline in the market greater.

There has been an undoubted increase in the consumption of reclaimed rubber, (1) in a larger use in those lines in which the consumption has long been established; and (2) in its introduction into new lines. Whereas its use was long confined mainly to rubber footwear, certain mechanical rubber goods, and waterproofing, reclaimed rubber now enters largely into tires and to a certain extent into insulation work. Factory superintendents who once hesitated to use this material have become able to do so with satisfaction, having been impelled to attempt it by the very high cost of crude rubber of all grades, just as they were forced, in an earlier period, by the gradual advance in Pará rubber, to take up the Assam and African sorts. It used to be asserted that no connection existed between the prices of reclaimed rubber and of crude gum, but this is no longer true. Doubtless the recent rise in rubber scrap and reclaimed rubber has been due largely to an increased demand for a substitute for crude rubber. This connection is not necessarily permanent, however, since reclaimed rubber has certain established uses, and its price would be regulated by supply and demand under conditions which might not correspond to those of supply and demand in the crude rubber market.

Another element in maintaining the prices of rubber scrap has been the growing exportation of reclaimed rubber from the United States. Canada alone imported during the last fiscal year, 1,316,494 pounds of "recovered rubber and rubber substitute," the larger part of which was reclaimed rubber from the United States. Our total exports of reclaimed rubber for the fiscal year 1897–98 amounted in value to more than twice those of any former year.

The importation of foreign rubber scrap has been stimulated to a certain extent by the high prices prevailing here. Although the imported scrap is not equal to the domestic collections, there are certain purposes for which it is adapted. There has been a complaint, however, of failure to receive not a little foreign scrap that was contracted for last year, owing to the failure of the material to come into the European markets.

The decline in prices evident of late has been hastened by early collections. It is estimated that the production of rubber footwear last season was at least 25 per cent. larger than in the year before; every year the collection of old shoes becomes more thorough and better systematized; and the very high prices prevailing this year have led collectors to hurry their stocks to market. Besides, the diminished activity of the rubber shoe factories at this season, lessening the demand for reclaimed rubber, has its effect upon the prices of scrap.

It is of interest in this connection to note that "rubber scrap" is no longer confined almost wholly to old shoes. Not only are other forms of scrap now utilized in the reclaiming mills, but certain rubber factories are grinding for their own use various forms of scrap, other than old shoes. There seems to have been little connection in price, however, between white rubber scrap—such as old water bottles, tubing, and dolls—and old shoes. No such advance has taken place in white scrap as in other sorts, for the reason that rubber reclaimed from it does not satisfy the same demand.

In the spring of 1898 efforts were made to bring about some concert of action in the trade with a view to preventing a rise in prices for scrap to an inconvenient level. It was suggested that, by the grinders remaining out of the market as far as possible, advances in price would be discouraged, but no form of agreement was reached, and the competition of buyers—in the number of whom there has been in recent years a large increase—speedily led to the upward tendency which reached a climax only within the past month. It is not to be understood that the highest prices quoted have been paid except in a few instances. There were grinders who were obliged to buy at the period when the advance movement was strongest, whereas concerns whose demands were less pressing, waited for the beginning of the decline, which some of them were convinced was

near at hand. At the same time smaller lots were changing hands at lower figures.

It has again been suggested that a concert of action on the part of the reclaimers would have a salutary tendency toward keeping down prices, and keeping them more stable—probably at about 6 cents. The lowest prices given in the preceding table relate to the period following the consolidation of the rubber reclaiming business several years ago. The price then ruled at 3 cents for about nineteen months. As soon as that combination failed prices went up. Some of the grinders claim now to be "out of the market," and that their light buying has been a factor in the recent decline in prices.

The next movement in the market is a problem. While the condition of the market of late has been weak, it may be due, as claimed, to the disinclination of buyers to come in. It is the opinion of some of the latter that when active buying is renewed, on account of the needs of the factories, prices will go up again—possibly to a higher figure than has yet been quoted. The suggestion that a concerted movement by manufacturers at this time to keep prices down would open the way to speculative buying is met by the claim that most buyers of old rubbers to-day have too much money tied up in woolens—the market for which is stagnant—for them to care to invest in rubber scrap for the purpose of speculation.

Estimates of the amount of rubber scrap handled in the United States are as high as 25,000 tons, of which 22,000 tons are old shoes. Allowing 25 per cent. for the shrinkage in reclaiming, would give a production of reclaimed rubber of 37,500,000 pounds for one year. While this is only an estimate, it is agreed upon by several operators. The consumption of reclaimed rubber by one manufacturing corporation is estimated at 10,000,000 pounds a year.

* * *

Theodore Hofeller & Co. (Buffalo, N. Y.) write to The India Rubber World, in response to an inquiry regarding the market for scrap rubber: "We have given the subject some thought, and have come to the conclusion that, though a good deal might be said on the fluctuation of the scrap rubber market, it would, after all, resolve itself into a question of supply and demand. During the past year there has been a shortage in the supply of scrap rubber compared with the demand for it, which has been the cause of the high prices. Now that we are entering the spring season, the supply is likely to be larger than the demand, and prices will undoubtedly be lower."

James M. Stotesbury (Philadelphia) writes: "It seems to me that present conditions are in great part the result of injudicious purchasing, and errors in judgment as to when and how to buy."

THE INDIA-RUBBER INDUSTRY IN EUROPE.

CONDITIONS OF THE TRADE IN ENGLAND.

In a review of "The Position of the India-Rubber Manufacture," London *Engineering* refers to the growth of the industry in America and continental Europe as "an indication that the supremacy of the British trade has vanished, and that now the business can only be carried on in the face of keen rivalry, as far as the continent is concerned, at all events. Time was when the old-established firm of Charles Macintosh & Co. could afford to treat their customers in an off-hand manner, and there are yet workmen in that concern who can remember when the workers were kept going night and day to fill the orders for elastic thread, in the period during which the firm had the monopoly of the manufacture of vulcanized rubber. The period of coining money has, however, in these later days, given way to a time of more or less anxious suspense and energetic endeavors to pay expenses, and, if possible, at the same time get an adequate return for invested capital."

While these conditions may seem deplorable to those who have seen better days in the industry, rubber men are reminded that they are not the only British traders who can recall with sighs a more prosperous past. "The monopoly conferred by the possession of a patent has only a certain duration of life, and the more valuable the monopoly the keener the competition is likely to be when it has run its legal course. The large increase in the number of rubber works, and the consequent cutting of prices in order to obtain the work necessary to justify their continued existence, is, of course, the main cause of the present depression in the industry, and the difficulty in making an adequate profit has, moreover, been accentuated in the last year or so by the unusually high price of the raw material."

"Early in 1898 an agreement was come to among practically the whole of the manufacturers to raise the price of mechanical goods 10 per cent., and at a later date another 10 per cent. was added, in order that the quality of the goods might be maintained without involving the manufacturers in any loss. This agreement seems to have worked pretty well, in spite of the fact that rubber goods of apparently similar composition may, in some cases, contain much more rubber than do others. The firm which puts 50 per cent. of rubber into an article and gets the 20 per cent. rise, is at once seen to be handicapped in open competition with a rival who puts 30 per cent. rubber and 20 per cent. of a cheap organic adulterant, if both get the 20 per cent. rise on the bulk. With a substance so susceptible of adulteration as is India-rubber, and with a public superlatively careless as to what they buy in the name of rubber, it is apparent that a fixed price or percentage increase in price cannot work equally to the advantage of all manufacturers."

Considerable reticence was observed, by the promoters of the recent meeting of rubber manufacturers held at Manchester, so that no trustworthy report of their proceedings has reached the public. *Engineering* assumes, however, "that the principal object aimed at was the strengthening of the trade, which served to bring about the rise of price, and to put the more or less temporary agreement on a more firm and lasting basis. The main desideratum was to try and put an end to the ruinous competition and cutting of prices, which has been going on merrily so long, and which has resulted not only in loss to the manufacturer, but also in the production of an inferior quality of goods, unworthy of the reputation of the British name. This cutting of prices would have met with its just fate long ago if a real effort was made by large contractors for rubber goods to see that they were supplied with articles of the real quality asked for in their specifications. Where a contract form stipulates that pure Pará rubber only must be used, and then goods consisting of a mixture of Pará and African rubber, or of African rubber alone, are accepted because of the lower price, an unfair advantage is given to the less scrupulous in the trade. Not that we wish to blame the rubber manufacturers unduly, or to accuse them of sharp practices, because they now recognize generally that it would be absolutely useless to tender according to the terms of the specification; the blame must

rest to a very large extent on the shoulders of the buyers." The writer recognizes, however, the difficulties in deciding whether rubber consists of pure Pará, or of an admixture of inferior kinds.

An idea seems to have got abroad that it is the intention of the larger concerns to form a combination, but no such idea, it appears, has come under serious consideration. "Owing to the conflicting interests of the rubber firms, some so large and important, and others quite the reverse, it is more than doubtful if any satisfactory combination could be brought about. No doubt there are several of the smaller concerns who would be willing enough to sell their works at a price, but it would be equally certain that, in the light of the present financial condition of more than one of the concerns, the views of buyer and seller, as to price of purchase would be sadly at variance."

As to the causes of the depression which has become so accentuated, our contemporary remarks that "the German and American works have been busy of late years in establishing agencies in England in certain classes of goods, more especially in cheap qualities for mechanical purposes, and by the superior finish and appearance of the articles, a considerable and increasing business has been got together. There is no denying that this matter of appearance and finish has given a great fillip to the German trade, especially in cases where the lasting power does not strike the purchaser as being of anything like the same importance as a low price. Somehow or other, British manufacturers, whether from a feeling of the intrinsic superiority of their products or not, have not hitherto paid much attention to little niceties of appearance, which may not at all affect the utility of the goods, but which are to the unexperienced buyer, an evidence of superiority." Now that there is a desire for a superior-looking common article in England, it should be remembered that though a superior finish may be applied to a "cheap and nasty" article, it may be very closely connected also with a superior quality of goods. Under these circumstances it is suggested as advisable for English manufacturers to "take a leaf from their opponents' book, and present the public not only with an article of good quality, but of good finish, as an additional attribute hitherto lacking in so many cases."

"We can truthfully assert," says the same writer, "that the length to which adulteration has gone in recent years in the case of many high-class goods, which for a long time successfully withstood the insidious approach of boiled oil products, is, in England, the direct outcome of Continental initiative. It is one of the humiliating confessions of modern business life, that if an opponent steps outside the path of strict rectitude, those who are really desirous of walking in the footsteps of the righteous, are either compelled by the force of circumstances to follow the bad example or else shut up shop. Thus it has come to pass that to keep pace with our Continental competitors, who are making such headway in England, our manufacturers at home have had to supply goods of inferior quality, or else lose the business."

Reference is made to the withdrawal from several rubber factories of the business which came to them formerly from certain tire companies who have decided to manufacture their own goods. "This has naturally been a severe blow to those firms who had adapted their premises and enlarged their plant so as to make them comply with the conditions as to quick delivery laid down in their various contracts. On the whole, whatever may be the outcome of the present semi-combine among the rubber manufacturers, it is quite clear that the country is sufficiently supplied with rubber works, and that there is no good reason for inviting the flow of capital into new concerns. The last dry autumn proved a serious thing for those firms who depend almost entirely on the waterproof garment trade for the bulk of their business, and a condition of affairs brought about by one bad season, indicates that there are many in the trade who find it difficult enough to get along without having Continental goods to contend with in the home markets. Hitherto the Germans have had nothing to do with the waterproof garment trade, as the familiar mackintosh of England is hardly ever worn by the Teuton, but now they are going into the business presumably with a view to export."

THE INDUSTRY IN GERMANY.

GERMANY imported last year 22,214,940 pounds of crude India-rubber (including Gutta-percha) and exported 5,359,860. The balance may be taken as approximating the consumption by German manufacturers. Applying the same rule to the rubber movement in that country for ten years past, we have this comparative statement of consumption:

YEARS.	Pounds.	YEARS.	Pounds.
1889	7,322,480	1894	10,110,540
1890	6,663,360	1895	10,909,360
1891	8,041,880	1896	14,019,720
1892	8,249,780	1897	13,848,780
1893	8,881,840	1898	16,855,080

Here is a showing, based upon the official classification of the weight (in pounds) of exports of German rubber goods for 1893, 1896, and 1898:

CLASSIFICATION.	1893.	1896.	1898.
Coarse soft rubber goods	2,565,640	3,828,220	4,312,000
Fine soft rubber goods	1,647,800	1,762,800	1,894,420
Rubber thread	273,240	388,300	542,520
Textiles coated with rubber	757,680	855,120	870,540
Waterproof wearing apparel	.....	134,860	197,560
Elastic hosiery	40,260	42,680	64,020
Rubber toys	616,660	(a)	(a)
Hard rubber	34,320	90,860	72,600
Hard rubber goods	971,960	1,411,080	1,613,480
Unclassified rubber goods	6,820	13,640	18,040
Total	7,666,060	8,847,000	9,585,180

[a—Now classified under coarse and fine soft rubber goods.]

The value of such exports reached $7,478,500 in 1898, against $7,439,250 in 1897. The value of rubber goods imported increased from $2,922,500 in 1897 to $3,026,500 in 1898. The imports consisted largely of "fine goods of soft rubber," waterproof clothing and cloth, and bicycle tires, including the imports of Russian galoshes.

German exports under the heading "Telegraph Cables, etc.," during 1898 amounted to 12,519,000 marks, against 9,743,000 marks in 1897. The largest value (2,767,000 marks) went to Argentina, followed by items in excess of 1,000,000 marks each to Russia, Switzerland, and Spain, and smaller items to ten other countries.

BRITISH RUBBER NOTES.

THE Forth Rubber Co., Limited (Edinburgh), waterproofers and mechanical goods and golf ball manufacturers, have paid dividends of 6 per cent. on their preference and ordinary "A" shares and 20 per cent. on the ordinary "B" shares. They have opened an extensive branch store at Dundee, Scotland.

=The late Dr. Eugene Obach, of Siemens Brothers & Co. (London), willed his library on India-rubber and Gutta-percha, specimens, etc., to the botanical museum at Berlin.

=The Dunlop Pneumatic Tyre Co. (France) report profits on trading for 1898 at £23,000, allowing a dividend of 3 per cent., which absorbs £19,461.

=George F. Butterfield, of Stoneham, Mass., has obtained a patent in England on the process for uniting rubber soles to leather boots which is employed by the Rubber Soled Leather Shoe Co. (South Framingham, Mass.)

HOOLIHAN TALKS ON EXPANSION.

"PHWAT I hould is that Dooey's worruck at Phillapena aught to be a foine thing fer the American rubber traade," said Hoolihan, with emphasis.

"You think we may sell some rubber bags to float the Spanish wrecks at Manila?" I inquired.

"Rubber bags be—blowed!" was the indignant answer. "Phwat I mane is thot the vast expansion av our traade thot is ahlready begun will be shared be the rubber paaple."

"Rubber certainly is expansive," I allowed.

"Traade folleys the flaag," quoted Hoolihan.

"In waves?" I inquired.

My friend paused, adjusted his huge glasses, and after looking solemnly at me with an air of mingled sorrow and indignation, said earnestly:

"Saay, you're more loike thim bloind min that run rubber mills here than they are loike aich other. They spind their loives an' their fortunes in gettin' the foinest masheens, the best min to run thim; they sit up noights wid chemists to lerrn ivry thrick av compoundin' that can be thaught av, they compate wid aich other so well that they can turrn out rubber goods chaper an' betther than ahl the rist av the worrld comboined; an' thin phwat do they do? Phwy, nothing but kape on worrukin', and sweatin', and cuttin' an' niver thry for a marrket that is simply theirs fer the askin'. In the mane-toime the Europaen rubber mills, widout half av their advantages, are runnin' noight an' daay an' payin' 30 an' 40 per cint. dividinds."

"We cannot compete with their pauper labor," said I.

"Can't we, me bucko? An' who said we couldn't? I've been in their mills an' its the troot I'm afther tellin' ye phwen I saay that no American mill could affoord to hire such dead an' aloive help. Have ye niver yet lerrned that skilled help is the chapest?"

"If we are so well equipped to get European trade why haven't we had it long ere this?" was my reply.

"Paartly because we didn't know the marrket, paartly because we didn't care about it, and paartly because the marrket didn't half appreciate or belave in us. Sure they thaught that a Yankee was simply a half cracked boaster. They didn't taake us seriously."

"Well?"

"Well, indade. Sure Ooncle Sam knew ahl the toime how he was regarrded abroad. Ut's a will known fact in diplomantic circles thot a shart toime before this war he wint to a lading advertising aagency an sez he:

"'Phwat 'ull ut cost fer a column a wake, nonparallel toipe, leaded, in ivery foreign newspaaper an magazine in the worrld? To tache thim who we are an' phwat we can do', sez he, 'wid radin' notices exthra appalin' to ahl classes?'

"'About foive hundthred million dollars joodishiously invistid moight do it in tin years,' sez the agint.

"'Saay tin months an' the cash is yours to-daay,' sez Ooncle Sam.

"'Impossible,' sez the agint.

"'Good daay,' sez Ooncle Sam.

"Phwin advertising agints turrn doun a job thin Providince stheps in.

"Wid no fuss nor folderol Dooey sails away fer Manila, an the foreign paapers pit in a few pityin' paragraphts in a condiscindin' waay. Thin worrud comes be way av the Spanish News Manufacturin' Co., that the Yankee pigs was defated, 'an the foreign paapers sez 'I tould ye so,' an' thin comes the troot, an' they ahl begin to wondther an' explaain, an, praaise an' blaame an' phwat not, an' ivry paaper in the worrld is full av American news. Thin a little laater down at Saint Iago Sampson an' Schley knocks the stuffin' out av another fleet, an' thin the aarmy captures so maany Spaniards that they had to bunch thim loike cheroots to count thim. Thin the Pace Commission wint ter Paris an' kep the whole worrld guessin' for three months be simply tellin' the troot an' stickin to it."

"Yes, but—"

"Hould on, me bye. Let me give yez the moral. Phwat has ahl this splindid foightin' an' loightnin' expriss thrashin' iv the inimy done fer Ooncle Sam? Phwy ut's give him advertisin' thot no money could buy. Sure he's the talk av the worrld to-day. His traade is increasin' be lapes an bounds an' the toime is in soight whin it will bate that av any counthry. He has dropped the musket an' grabbed his grip-sack an' is the worrld's drummer fer traade. Wid that grip packed wid samples av stame engines, boilers, tools, an' most iviry thing that can be maade, he's takin' ordhers at the rate av millions av dollars a daay, cash sales—the schatistichs proove it—an' av the rubber traade doan't get their goods sold along with the rist ut's bound to be set down as the fool av the traade family."

DISCOVERIES OF RUBBER IN PERU.

SOME facts of interest regarding India-rubber in Peru have been given to THE INDIA RUBBER WORLD by Mr. Cary Wright, a mining engineer, who has spent several years in the province of Sandia, department of Puno, and who recently visited New York. This territory is in the extreme southeastern part of Peru, and is drained by tributories of the river Imambari, which separates that republic from Bolivia. A report has been made by Alfredo Rodriguez, who, after having been long employed in rubber gathering up near Iquitos, concluded to look for rubber in the southern provinces. He claims to have found trees in profusion, at a higher altitude than in the Amazon valley, capable of an average yearly yield of 15 pounds, amid healthful surroundings. This report was made for Atholo Burnett Reader, an English mining company manager living at Lima, who has obtained a concession on 25,000 acres of rubber lands for a term of years, under the conditions of protecting the trees, paying the government 92 cents per 100 pounds for the rubber collected, in addition to the regular export duties, and making all shipments via Mollendo, on the Pacific coast. Mr. Wright refers to the report of Señor Rodriguez as trustworthy with regard to the rubber resources of this country—which lies due west from the headwaters of the Beni river, in Bolivia—and to the terms of the Reader concession as illustrating the liberality of the Peruvian government in encouraging development.

Mr. J. Pierre Jay, of New York, who visited South America in the interest of the Beni Gum Co., in 1893, is convinced that the rubber trees in Sandia, as well as on the Beni, are of a different species of *Hevea* from those of the Amazon, which may explain their productiveness on higher ground than in Brazil.

THE Congo rubber trade is likely to be facilitated by the telegraph line up the Congo river, which has recently been extended to Lukolela, 500 miles from the starting point at Boma.

NOTES ON RUBBER AND OTHER INSULATION.

GROWING USE OF PAPER FOR INSULATION.

THE paper insulated cable for telegraph and telephone work, now being laid between London and Birmingham, will be the longest of the kind that has yet been undertaken. Each pair of conductors is wrapped with specially prepared paper in such a way as to insulate them from each other and from neighboring conductors. The whole is sheathed in lead and drawn through cast iron pipes laid two feet underground. The length of the line is 150 miles. The cable is being made by two companies, of which one is the foreign branch of the Western Electric Co. (Chicago).

The *Electrical World* (New York), having remarked in a recent editorial that "the use of rubber is diminishing" in insulation work, the London *Electrical Review* says: "The author of these statements does not appear to be well inspired. There is no doubt that in the extending field of electricity many other insulators are now finding a place, and paper plays an important *rôle*, but that the use for India-rubber is declining is quite incorrect. The output in insulated wires and cables increases yearly, not only for internal house wiring but for mains."

In a recent editorial *The Electrician* (London) remarked: "One fact is certain, namely, that, except for short distances, paper is the insulation *par excellence* for underground telegraph cables, and it is only necessary to find a suitable waterproof, mechanically strong, and a sufficiently light protective covering, for this class of insulation to supersede Gutta-percha in submarine work as well as on land."

"Instead of a falling off in the demand for rubber insulation," said the manager of an important American insulated wire concern, "I expect to see a great increase in its use. The merits of paper insulation, within a sheathing of lead, long have been known, but lead sheathed conductors are not suited for house wiring. Hence the use of paper sheathing is confined mainly to underground work—for telephone cables and underground trolley systems. I never expect to see the day when rubber insulation will not have the preference for house wiring, and in my opinion we are just entering upon an era of the greatly increased use of electric lighting in dwellings. At first electric lighting was confined to the great office buildings, the larger hotels, and the residences of wealthy people. But it is coming to be used in apartment houses within the reach of people of moderate means, and smaller residences, and must eventually extend to the masses. No matter how much paper insulation may be used, it does not displace rubber; on the other hand, more rubber will be used as time goes by, just as more illuminating gas has been used since the introduction of electric lighting, in spite of the great increase in the latter."

UNIFORMITY IN INSULATION REQUIREMENTS.

AN important step has been taken of late in the direction of uniformity in specifications of insulation for house wiring. A meeting of a special committee of the Underwriters' National Electric Association, held in Chicago, was attended by representatives of all the factories in the United States manufacturing insulated wire, who had been brought together by invitation of Mr. R. E. Galleher, of the New York Insulated Wire Co., and had traveled to Chicago from New York at his suggestion. They were welcomed by the underwriters and a day was taken up in a discussion of their products, the manufacturers answering many questions as to factory methods, insulation tests, etc. Certain specifications were approved jointly by the underwriters' committee and the manufacturers and are to take effect from a date to be fixed by the underwriters' association —probably July 1. The specifications to which reference is made refer to rubber covered wire, slow burning weatherproof, slow burning, and weatherproof line wire.

The Chicago meeting was participated in by the city electrician of Chicago and representatives of the electrical departments of other cities, who are in full accord with the underwriters regarding the importance of definite specifications for wire insulation, and particularly the importance of uniformity.

The following resolution was adopted:

All wires and cables designed to meet these specifications hereafter placed upon the market must be plainly tagged or marked as follows:

1. The maximum voltage at which the wire is designed to be used.
2. The words "National Electric Code Standard."
3. Name of the manufacturing company and, if desired, trade name of the wire.
4. Month and year of the manufacture.

GOOD CABLE BUSINESS IN PITTSBURGH.

THE Standard Underground Cable Co. (Pittsburgh) received in December an order for 40,000 feet of overhead cable, rubber insulated, for the imperial telephone system in Tokio, Japan, and has since received an order for 16,000 feet of lead covered paper insulated telephone cable for the same system, which embraces a long distance line from Tokio to Kobe—a distance of 378 miles. The orders received last year by this concern amounted to $1,300,000; during the first two months of 1899 they amounted to $600,000. It is proposed to increase their capital stock from $1,000,000 to $1,500,000, acquire a new site, and erect new and larger buildings than they now occupy, with the latest equipment.

BAD LUCK ON THE AMAZON.

AT the fourth annual meeting of the Amazon Telegraph Co., Limited, in London, the receipts for the year from the operation of the Amazon river cable were reported at £29,446, and the working expenses at £18,494. The difficulties in the way of keeping communication open were stated to have been confined to certain localities, and some success had attended efforts to bridge over breaks in the cable with short overland wires. The directors were authorized to issue debentures not exceeding £75,000, in addition to the £125,000 outstanding. The directors felt certain that business could be developed as soon as permanent communication was established.

PROFITABLE BUSINESS IN ENGLAND.

THE gross earnings of the India-Rubber, Gutta-Percha, and Telegraph Works Co., Limited (London), for 1898, after allowing for doubtful debts, reached £153,439, and the net profits—deducting salaries, debenture interest, general expenses, and amount written off for depreciation—£62,222. The dividends paid, at 10 per cent., amounted to £50,000 (=$250,000). The amount carried forward is £25,395, against £13,173 from 1897.

W. T. Henley's Telegraph Works Co., Limited, have paid dividends, on the business of 1898, amounting to 12 per cent. on the ordinary shares, the preference shares carrying 7 per cent.

The Telegraph Construction and Maintenance Co., Limited, have paid dividends amounting to 15 per cent. on last year's business.

HEARD AND SEEN IN THE TRADE.

"THE trouble with the mackintosh business," said a manufacturer of machinery for that trade, "is in a lot of people engaged in it who ought not to be there. Every superintendent in a proofing mill has around him a few men who think that they know as much as he does, and who are anxious to become superintendents themselves. They catch the ear of a man with capital and convince him that, being employed under a superintendent who is master of his business, they can do everything that the other man does—they have watched his work. Now and then one of these green hands gets a chance to start a factory, and begins turning out goods before his compounds have had the test of time. Rubber compounding is only a chemical process, but it is one that is not mastered readily. A cook mixes the ingredients for a cake, and the result may be known in a few hours. But let a new hand mix a batch of waterproofing compound, and it may be six months before anybody can judge of its quality. If the stuff is put on cloth at once, and it turns out a failure—as it does oftener than not in the hands of a new superintendent—the goods are certain not to give satisfaction. They will have an offensive odor, or will stiffen, or something else will be wrong. Then the manufacturer is obliged to take what he can get for them. This is why you will find so-called mackintoshes in the market, offered at less than the cost of the cloth, to say nothing of the labor expense put into them. The trade is hurt in two ways. People who are tempted by the low prices to buy such garments are likely never to buy another, taking it for granted that all mackintoshes are alike. Besides, the makers of garments of a good quality are pressed to sell at prices in keeping with those of the poorest quality. There is no other branch of the rubber trade where the risk of employing a new man for superintendent is greater than in the mackintosh line."

* * *

MR. CHARLES R. FLINT tells me that he has been looking for a practical rubber substitute for twenty years, during which time he has never refused a hearing to anyone who claimed to possess the means of producing such an article. "I always listen to what they have to say," he continued, "and then turn over their samples to an expert, to be tested. But I have yet to find a true substitute; the best that has been done is to produce an adulterant for rubber compounds. As for adulterants, I consider that the practical men who are engaged in manufacturing rubber goods know more about such things than the outsiders who are trying all the while to invent something new for such a purpose. Still I have not given up the search, but am still ready to welcome any man who feels that he has discovered a true substitute for rubber."

* * *

I MET a western rubber manufacturer in New York lately and asked what advantage he found in respect to his location. He replied that it was worth something to be located apart from any other rubber concerns, for the reason that it was easier to keep his working force together. "We don't have to fight for our help," is the way he expressed it. "Another reason is that it places us nearer to an important section of the trade. Many of our customers, finding themselves in sudden need of an article not in stock, live near enough to our factory to order it with the assurance that it will reach them the next day; which gives them a certain advantage over dealing with eastern firms. Nearness to the trade thus protects us to a degree from competition from houses in the east." But when I saw the western man booking orders from New York houses, it became evident that the demand for good goods is not confined by geographical limits.

* * *

WHEN I asked a rubber importer about the extent to which the vehicle tire business is likely to add to the demand for crude rubber, he said: "It will not add very much if all the tires made are as 'rotten' as those on my own carriage. I should say that there isn't much rubber in them." Which shows that a man may be very successful in the crude rubber business and yet make a bad bargain when he undertakes to buy rubber in manufactured forms.

* * *

R. E. GALLEHER, of the New York Insulated Wire Co., in a recent talk, mentioned the advance in cost of the principal raw materials used in the insulated wire industry as having the opposite from a depressing effect, for the reason that people are disposed to buy copper and rubber more freely on a rising market, just as is the case with stocks in Wall street. He regards copper as practically "cornered." While the French copper syndicate lasted it was essentially weak for the reason that it did not control the output. As fast as prices were advanced the miners increased their output, with the result that the syndicate came to grief. But in the present situation the mine owners are included, making it to their interest to restrict production whenever this course is necessary to the maintenance of prices.

* * *

THE United States government recently placed orders with two of the insulated wire concerns for 166 miles of submarine cable for connecting stations in the Philippine islands. This is to be seven conductor cable, of which type a considerable quantity was purchased for use along our own coasts during the late war. Mr. Galleher thinks that when a Pacific cable is built, as now appears probable, it should be constructed in the United States. There is, of course, no plant in existence capable of manufacturing an ocean cable, but he thinks it would be possible, on account of the sentiment against going abroad for anything which can be made at home, to get Congress to make an appropriation for a cable plant. Considered solely as a commercial enterprise, there is a lack of inducement for capitalists to invest in a cable plant, since if one were erected here capable of building a line across the Pacific, many years might elapse before another important order was forthcoming. There is a constant demand, however, for short cables from different parts of the world. It must be remembered, however, that in recent years the great English cable companies have felt called upon to add a general line of rubber work, to keep employed in the intervals of dullness in the cable industry.

* * *

"THE idea of monopolizing the crude rubber trade is not a new one," said a reminiscent citizen. "It has been tried to a certain extent here in New York. Jules Abecasis did have a pretty firm hold on the trade at one time, but it didn't last. There was a time, while he was called the 'rubber king,' when probably every pound of rubber that went into consumption here paid a commission to Abecasis. He felt secure of his po-

sition, and not without some reason, for when a certain young man who afterwards reached a leading position in the trade started out as a rubber broker on his own account, it took six months of hard work to secure his first order. After the ice was broken, however, orders came more freely, because it had been proved that Abecasis didn't control all the rubber.

"I recall a more recent incident that is of interest just now. A man familiar with the trade who set up as a broker, with no idea of becoming an importer, found, whenever he attempted to execute an order, that the importers charged him a price which made it impossible for him to do business. But that didn't stop him. He went into the foreign markets and found no difficulty in arranging to obtain rubber on the same terms as the other importers, from which time he was independent of them. And I don't believe that the time will ever come when it won't be possible for a new man to do the same thing, no matter how much the existing channels of trade may be tied up by a trust." THE MAN ABOUT TOWN.

CORRESPONDENCE FROM THE TRADE.

A NEW RECLAIMED RUBBER.

TO THE EDITOR OF THE INDIA RUBBER WORLD: We have produced a reclaimed rubber by a process entirely new, and the products, as proved by many tests, are superior to the old steam process reclaimed stock. Comparative mechanical tests on shoe stock show our product to average 40 to 50 per cent. stronger than from the old process.

Besides shoes, we can reclaim in a perfect manner bicycle tires, carriage tires, all mechanical goods, and inner tubes of bicycle tires. We do it at a much lower temperature, thus preventing the great deterioration of the rubber by the excessive heat necessary in the other processes. No other process will reclaim carriage or bicycle tires, nor inner tubes in good shape. Our product is readily massed, calendered, and is capable of being used anew without new gum for many purposes—or with a *very* small percentage of new gum for finest grades. The cost is practically no greater than the steam process. With all old method reclaim-stock there is difficulty experienced with the curing of the manufactured stock—from blowing or blistering—while with ours no trouble whatever is had.

On account of the superiority of our reclaimed rubber, we can effect a saving in cost of most compounds in manufacture of from 8 to 35 cents per pound, or from 25 to 60 per cent., or more. The reclaimed stock will stand exposure free from oxidization better than other kinds. Stock made from inner tubes will calender out finely as thin as paper, and, compounded with zinc, etc., have a tensile test of 6½" to 1". Another advantage with our process is that the time to devulcanize averages about one-third that of the old method. We save the elasticity much more than the old process. I send you small samples—inner tubes, carriage tires, stamp compounded and vulcanized, inner tubes sheeted (not cured) inner tubes with zinc, etc., cured. The stamp samples were not calendered, so are rough on back side. S. S. N.

New York, March 7, 1899.

CHEAP CHLORIDE OF SULPHUR.

TO THE EDITOR OF THE INDIA RUBBER WORLD: We have at present a considerable quantity of chlorine, and in the near future will have a very large quantity, which will be utilized in making certain chlorine chemicals. Our attention has recently been called to chloride of sulphur used in the rubber industry, and we wish to inquire whether you are in position to give us any information concerning the possible consumption of chloride of sulphur, in case we would make it on a *large scale* and at a *low price*. We do not know the price even at which it is sold, much less the consumption of this chemical. We are certainly in position to make it very cheap in connection with other processes which we intend to carry out. C. E. A.

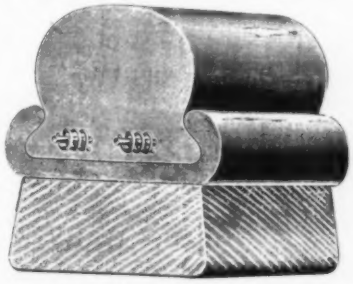
New York, March 19, 1899.

WE are advised by a manufacturer of rubber substitute that chloride of sulphur is sold at from 18 to 24 cents per pound. "I have not found much sale for the article," he writes, "and indeed have not pushed it to any extent for the reason that I have been using all I could produce. I can form no correct idea of the amount used in this country, but think, with the exception of the amount used in making substitutes it is limited. The mechanical rubber manufacturers use very little, and the bulk, I think, is used by manufacturers of dress shields and druggists' sundries. They require it for vaporizing the goods. Substitute chloride will *not* answer their purpose, and is used *only* for substitutes. At one time I was in correspondence with an English firm who supply the most complete plant for its manufacture, and had an idea that it would pay me to go into its manufacture with a view to supplying this market, but on closer investigation I concluded that there was not enough in it to warrant the outlay. Most of that used is imported and costs about 13 cents per pound in England. There is one small producer in Brooklyn—I believe the only one in this country." It may be said, in general, that the use of chloride of sulphur—besides in the manufacture of substitutes—is confined chiefly to the cold cure and the vapor cure. Only a few mills to-day use either of these cures. The use of substitutes, however, is slowly growing, and were the chloride so cheap that it could be profitably shipped abroad (where substitute is very largely used and the acid cure more generally and successfully practised), there might be a good market for it.—THE EDITOR.

VEHICLE TIRES ABROAD.

TO THE EDITOR OF THE INDIA RUBBER WORLD: Being a subscriber to your journal and knowing that you are very well posted on all lines of rubber goods, I write you for information upon vehicle tires used in foreign countries. It is my desire to know what kind of vehicle tires are used in England, France, and Germany, and also Canada, and what kinds are used most. I would also like to know the way they are attached to wheels, or process of putting the tires on wheels. T. W. MORRIS.

No. 1114 Washington boulevard, Chicago, March 12, 1899.



PNEUMATIC vehicle tires were used abroad as early as 1845, but with little success. In 1881, William H. Carmont patented in England a solid rubber tire, held in a state of compression in a rolled steel channel, which was adopted by The

Shrewsbury and Talbot Cab and Noiseless Tire Co., Limited, who fitted the new tires to thousands of hansom cabs, besides many broughams and private carriages. Such tires were applied to a few carriages in America, under licenses from the English patentee, but their liability to pull out of the steel channel was a grave objection. Finally American inventors developed the solid rubber tire now in such wide use, which is held in place, not by compression, but by wires running longitudinally through them. Tires of the American construction have been introduced to a large extent in Great Britain and continental Europe. More recently a tire has been patented by T. W. Burgess, of England, the distinctive feature of which is illustrated herewith—a spirally coiled wire to guard the rubber from being cut by the longitudinal wires. This improvement has been adopted by the Shrewsbury and Talbot company, though they have not discarded the compression feature. The rubber tires used in Canada are of the same types as those made in the United States. The employment of rubber for this purpose is larger here than in any other country.—The Editor.

TO RUBBER LATHE MAKERS.

To the Editor of The India Rubber World: We herewith enclose a bottle stopper. We understand there is a lathe made with an automatic attachment to cut these stoppers. It would interest us to know who makes such a lathe.

TRAUN RUBBER CO.

New York, March 21, 1899.

The stopper is a small disk of almost pure rubber, the cut surfaces being concave and convex, respectively.—The Editor.

TO MOLD HARD RIM CEMENT.

To the Editor of The India Rubber World: Will you kindly inform me where I can procure molds—or a preparation to dust them—suitable for molding hard rim cement? I have used iron molds dusted with whiting, lime, etc., and greased, but without success, the cement sticking to the mold.

S. E. BARR.

New Brunswick, N. J., March 21, 1899.

If soap will not do, use paraffine or run in paraffine paper.—The Editor.

RECENT TRADE PUBLICATIONS.

RUBBER GOODS FOR MECHANICAL PURPOSES. COTTON HOSE, Carriage Cloths, Bicycle Tires, etc. Trenton Rubber Manufacturing Co., Trenton, N. J. [Paper. 4"×8". 112 pp.]

This is not only a descriptive price list of a very full line of goods, but also a convenient and comprehensive handbook of information relating to belting, hose, and other mechanical rubber products, which will prove convenient for reference in the hands of jobbers and retailers. It is suitably illustrated and is generally attractive in appearance, inside and outside. Reference is made, in the introductory pages, to the increasing export trade of the firm, due to the special attention paid to this department of their business.

ILLUSTRATED PRICE LIST OF GENERAL INDIA RUBBER GOODS for Mechanical and Engineering Purposes. The Byrnes Brothers' India-Rubber Co., Limited, Manor Rubber Mills, Aston, Birmingham, England. [Paper. 8½"×10¾". 28 pp.]

This is the company which was bought recently by The Dunlop Pneumatic Tyre Co., Limited, as described at length in The India Rubber World of March 1 (page 149), and whose business now belongs entirely to the Dunlop company. But for the purpose of continuing the manufacture of general rubber goods—*i. e.*, apart from the pneumatic tire department—the business is still carried on under the old name. This catalogue embraces rubber sheet, cord, valves, washers, rings, buffers, rollers, gas bags, bottle stoppers, squegees, door springs, door stops, bottle washers, molded goods generally, steam packings, ladies' and gentlemen's waterproof garments, water bottles, air cushions and beds, sporting goods, hose, tubing, machine belting, and a great number of other articles.

ELECTRICAL MEASURING INSTRUMENTS (CATALOGUE B). JAMES G. Biddle, No. 910 Drexel Building, Philadelphia. [Paper. 6"×9¼". 108 pp. Price 10 cents.]

The day of overhead distribution of electric light and power is over; it has been superseded by the underground system. The manufacture, laying, and maintenance of underground cables is therefore giving employment to a great amount of labor and capital. At each step in the installation of an underground system the cable must be carefully and repeatedly tested; the safety of the system and of communities, as well as the comfort of the latter depends upon it. A thorough test of a cable includes measurements of insulation resistance, conductor resistance, and capacity. The new development in the electrical field has brought into existence a line of specially designed testing instruments, which will be found to be fully described in this catalogue.

FINE RUBBER DRUGGISTS' SUNDRIES. THE SEAMLESS RUBBER Co., New Haven, Conn. [Boards, 5⅛" × 8¼". 94 pp.]

A well arranged illustrated and descriptive price list of a comprehensive line of goods which includes, in addition to druggists' sundries, many articles for dentists, chemists, and plumbers, the stationery and toy trades, sporting goods, etc. Many additions have been made to the Seamless company's line since the issue of their last catalogue, some of which are entirely new. The Nile green tint which is used as a background on each of the printed pages gives a pleasing effect, especially to the illustrations, which are numerous and well executed. It is one of the best trade publications of the year.

ILLUSTRATED CATALOGUE OF PACKINGS, VALVES, GASKETS, DIAphragms. Boston Belting Co., Boston. [Paper. 3⅝"×6". 36 pp.]

An attractive new presentation of the merits of a line of goods long occupying an enviable reputation. Manager Forsyth's idea is that the convenience of the trade is furthered by the issue of catalogues each devoted to a single branch rather than to one covering the whole line of products of the factory, and this is an interesting specimen of a catalogue devoted to a single branch. It gives a clearer idea of the importance of the packing trade, perhaps, than the same number of pages devoted to the subject in a general catalogue.

[CATALOGUE] NO. 10—1899. LEATHER BELTING AND SPECIALTIES for the Mill Supply Trade. W. D. Allen & Co., Chicago, Ill. [Paper. 6⅞"×10¼". 48 pp.]

The catalogues from this house are always attractively gotten up and make interesting reading, besides giving an impression that it will pay to do business with the house in question. The present issue forms no exception to the rule, and is commended to dealers in hose and hose accessories.

CARRIAGE AND BICYCLE TIRES. THE DIAMOND RUBBER CO., Akron, Ohio. [Paper. 7¾"×5¾". 20 pp.]

This firm make pneumatic and solid tires for bicycles, carriages, and motor vehicles, in addition to a general line of mechanical goods. Three grades of bicycle tires are made—"Crown Prince," "Antelope," and "Clipper"—all unguaranteed, for the reason that "the records of the sales of guaranteed tires during previous years show that a large majority of buyers are taxed to maintain the claims made by the minority."

RUBBERS IN THE SHOE JOBBING TRADE.

THE Middle States Shoe Jobbers' Association was organized lately in New York on lines similar to those on which jobbers' associations had been formed in the West and in New England, as reported in THE INDIA RUBBER WORLD. The officers are: President, L. P. Ross, of L. P. Ross & Co., Rochester, N. Y.; first vice president, M. C. Paul, of Paul Brothers, Philadelphia, with vice presidents in nineteen cities; secretary, W. G. Grieb, of J. G. Grieb & Sons, Philadelphia; treasurer, Thomas E. Greacen, of New York.

It is both affirmed and denied that the purpose of the new association is to deal with the alleged price cutting among jobbers of rubber footwear. Both of the other associations have devoted particular attention to this subject, and the first news to reach the public regarding the new organization is that a special meeting of its executive committee was held at the office of Morse & Rogers (New York), at which the principal topic discussed was the rubber question. A reporter for THE INDIA RUBBER WORLD who called twice on Mr. Rogers, who is a member of the committee, found him too busy to talk of the matter.

At the time the association was formed, a list was given out of firms who had written that they "desired to coöperate with the movement, but could not be present at the meeting," including the Goodyear Rubber Co. Manager James Kipp, of this company, said to THE INDIA RUBBER WORLD: "We wrote in answer to a letter of invitation from the committee, that while we were in sympathy with their movement, we were not cutting prices, and therefore had no reason to join the association. We do not know why prices should be cut on rubbers any more than on leather goods, and the jobbers who have been pursuing this policy probably are beginning to see their mistake."

In an interview for THE INDIA RUBBER WORLD Mr. Greacen, treasurer of the association, said that its objects were mainly social. It was believed that by promoting a closer acquaintance among shoe jobbers and thereby doing away with misunderstandings which have prevailed in the past, certain abuses which have crept into the trade could the more easily be abolished. The association had not been formed with a view to dealing with the trade in rubbers. Every reason which exists for promoting a social organization of the shoe jobbers would exist if there were no rubbers in existence. The western association of jobbers had had a good deal to say about rubbers, for the reason that the trade in rubbers had become more demoralized in the West than elsewhere, and that happened to be a pressing question at the time of the first meeting at Chicago.

Vice President Paul is quoted by *Shoe and Leather Facts* as saying that the regulation of the sale of rubber boots and shoes is only an incident of the organization. "I do not think," said he, "that the association has any power to regulate prices. In a broader sense they are organized to bring about a uniformity in the price of a given article in rubber footwear to all dealers. It is not the object of the association to arbitrarily advance prices; only to agree among themselves, as honorable and just men, not to make different prices for different dealers, but to have a uniform price, and that the lowest at which rubbers can be sold."

* * *

TWO large retail houses in New York buy rubbers direct from the factory, at "jobbers' prices," on the ground that, buying on as large a scale as many jobbers, they are entitled to equally good rates.

"Do you give your customers the benefit of the discount which you save?" the buyer for one of these houses was asked,

"No. We make a little more money, perhaps. But we do guarantee all the rubbers we sell, and that amounts to a good deal. Whenever complaint is made of a pair of rubbers we replace them, even when we feel convinced that the fault, if any, is that of the wearer. We assume that they make the complaint in good faith, and it pays to make every customer feel satisfied."

"Is it probable that buying direct from the factory is likely to become general among large retailers?"

"I hardly think so. We place large orders for rubbers at the beginning of the season, and plan to have the goods delivered about as fast as we can dispose of them. This keeps us busy guessing as to our demands from day to day, to prevent either overstocking or running short of goods. To-day we have several hundred cases in reserve, in addition to the goods on our shelves; during the late 'blizzard' we had to buy on the outside to keep up our stocks. If we were buying from jobbers, they would take care of the storage, and most retailers prefer this method of doing business. They have to pay a little more for their goods, in the shape of jobbers' profits, but they don't object to this, so long as all have to pay the same rate."

"Is price cutting among jobbers general?"

"No doubt there is a good deal of it. If a jobber has a chance to make a good sale by offering a concession, I don't see why he shouldn't do it. Sometimes we get in a line of leather shoes which we do not feel like carrying very long, and they are sold at a price which will unload our shelves. We have one price for rubbers—carrying no 'seconds'—but whenever, for any emergency, we buy an outside line, we dispose of the remnants at a reduced price. I don't see why jobbers, as well as retailers, should not fit prices to conditions of the trade, and I don't suppose that they make reductions when it is not to their interest to do so."

"Is it practicable for such a house as yours, or a few such houses, to arrange to take the whole product of a small factory, and thus keep it going?"

"No. In the first place, it would be hard to get several houses to agree to buy from the same factory. Again, we want to be in a position to offer to our customers the widest possible variety. Hence we buy from one of the largest factories; a newer concern would hardly be able to fill our requirements in styles and sizes, in quantities to suit."

"How do the new factories manage which are making a point of selling direct to the retailer?"

"Probably by offering an extra discount, corresponding to the discount which the old concerns allow to jobbers."

* * *

THE same buyer was asked for his views in regard to prices of rubber footwear. "Prices are high enough now," he said. "Women have become accustomed to paying 50 cents and men 75 cents for an overshoe, and it would not be easy to get more. It may be true that crude rubber costs more now than formerly, but that is only one item in the cost of footwear. The labor cost has not advanced. If rubber should advance 10 or 20 per cent. in a year, that wouldn't justify a raise of 10 or 20 per cent. in the price of rubber goods."

Mr. Thomas E. Greacen, mentioned above and a leading shoe jobber in New York, said to an INDIA RUBBER WORLD man: "I think that the prices of rubbers are high enough, and the trade could hardly stand an advance. While the cost of raw rubber may be higher than heretofore, I think that manufacturers are in a position where they can afford to meet fluctuations in the cost of materials without changing their selling prices very often." Personally, Mr. Greacen would like to see the sale of rubbers divorced from the regular shoe trade, but he does not look for any such change. He regards the handling of rubbers as the least satisfactory department of the shoe trade, and by no means the most profitable. But he thinks the day very far in the future when rubbers will be distributed through any other channel than the shoe jobbing trade.

* * *

"THE object of the shoe jobbers' association," said another man, "is to stop the cutting of prices on rubbers, which has been so general for two years past. At first it was done secretly. The rubber manufacturers had contracts with the jobbers with stringent provisions for the maintenance of prices, but it is one thing to suspect a man of breaking the rule and another thing to prove it. This season the United States Rubber Co.'s contracts contained no restrictions on the jobbers, and cutting has been practised without restraint. The result is that jobbers have sold a great many goods without making a profit, and they have concluded to stop. The cutting was worst out west, and there the first association was formed. I think that it has resulted in benefits to its members already. The eastern associations are too new to have accomplished anything, but I think that they will render prices more stable. The men who have cut prices most freely are among the most active in organizing, but now that 90 per cent. of the jobbers in New York state have come into the movement, and in some other states in like proportion, I think the practice likely to be stopped. It won't help matters any for the manufacturers to fill their contracts with restrictions—the jobbers will cut prices if they want to do so, and it will be stopped only when they get tired of losing money by it."

* * *

THE rubber shoe trade look for the appearance of lists for the season of 1899-1900 toward the latter part of April. The usual date for their appearance has been April 1, but last year the new prices were delayed until May 1, and the idea prevails that the selling contracts made to cover twelve months from the latter date will be allowed to expire before further announcements are made. It is also trade gossip that rubber shoes will be higher this year. Rubbers have been higher, in the history of the trade, and it is not believed that an advance now would interfere with the demand for goods. The belief that prices will be higher is due to the fact both that crude rubber and other raw material continue to cost more than formerly and that advances have been made in mechanical goods, mackintoshes, and druggists' sundries.

BRIEF ABSTRACTS OF RECENT RUBBER PATENTS.

AMONG recent patents issued by the United States patent office, embodying applications of India-rubber or Gutta-percha to a greater or lesser extent, have been the following. It is not practical here to do more than to note the use of rubber sufficiently to enable those who may feel interested to decide whether or not to look into any particular patent more fully:

TIRES.

No. 619,836.—Tire. William Bundy, John M. Doan, and Scott Heslet, Penn., Mich.

A tire for vehicle-wheels, comprising outer and inner concentric tubes, and wrapped or folded filling of sheet material interposed between the tubes and snugly occupying the annular space there-between, and an inner tube-filling consisting of continuous parallel strands arranged longitudinally of the tire to resist stretching thereof, and maintain the tire at a uniform length.

No. 619,385.—Mechanical Fastening for Pneumatic Tires. George A. Burwell, Toledo, Ohio.

In a vehicle-wheel the combination of a rim, an aperture through the rim having an expanding or flaring mouth, a pneumatic-tire sheath or shoe, a binding-wire to engage each edge of the shoe, each of its ends being pivotally connected to the separable extremities of toggle-links which when drawn into the flaring mouth of the aperture are caused to approach each other and draw the ends of the wire together, contracting the circumference.

No. 619,447.—Cushion-Tire. Swan F. Swanson, Pueblo, Colo.

In combination, the flexible tire, the thimble formed with a curved flange, the helical spring encompassing the thimble of the continuous notched strip, the bearing-plate and the clamps arranged to secure the inner end of the spring, notched strip, and bearing-plate, together.

No. 619,408.—Wheel for Vehicles. John A. Heany, Philadelphia.

In a wheel for vehicles, in combination with a hub and spokes, a stiff inner rim and a stiff outer felly, concentric with the rim, with a space between them; a rubber tube or tubes set between the rim and the felly, binding-rods set within the tube to distend the latter into a groove in the inner face of the felly and to compress it into a groove in the outer face of the innnr rim; the opposing ends of each of the rods being separated and screw-threaded and joined by a right and left female screw-threaded clamp; whereby, the inner rim and outer felly are secured together.

No. 619,453.—Pneumatic Tire. Jasper P. Warner, Decatur, Mich.; Roe P. Warner, administrator of said Jasper P. Warner, deceased.

The combination of a suitable inflatable tire made up of flexible material, and overlapping armor plates supported in rows at each side, the edges of which interlock, the rows at each side projecting under the next succeeding row from the rim outward, and the row at the center or outer periphery of the tire overlapping the outer edges of the next adjacent rows at each side so that the edges of all plates and rows interlock and the plates overlap outwardly from the periphery of the tire in both directions.

No. 619,544.—Pneumatic Wheel-Tire. George H. Clark, Boston.

In a pneumatic wheel-tire, a strip of sponge-rubber at the tread side of an expansible air-tube and a substantially non-extensible strip interposed between the strip of sponge-rubber and the expansible air-tube whereby compression of the sponge-rubber strip is prevented when the air-tube is expanded.

No. 616,462.—Wheel Tire. John J. Harden, Chicago, assignor of one-fourth to Frederick T. White and William F. Stewart, same place.

The combination of a wheel rim having recesses therein adapted to receive and retain the edges of a resilient strip or band, or suitable projections thereon, the resilient strip or band and ridges attached to, or a part of, the strip or band.

BOOTS AND SHOES.

No. 619,108.—Pneumatic Shoe-Stuffer. Fred G. White, Aurora, Mo., assignor of one-half to Joseph Britt, St. Louis.

As a new article of manufacture, a pneumatic shoe-stuffer, consisting of an inflatable bag in the form of a shoe, the bag being provided at its toe end with a hood whereby to receive a rod for pushing such end in the toe of a shoe.

MACHINERY.

No. 620,231.—Molding and Vulcanizing Apparatus. Henry J. Doughty, Providence, R. I.

In an apparatus for the purpose described, the combination with the vulcanizing mold having a transverse recess intersecting the chamber thereof, and an auxiliary two-part mold adapted to be received in the recess and having openings communicating with the chamber of the vulcanizing mold.

MISCELLANEOUS.

No. 618,945.—Revolving Chain-Cover and Gear-casing. Frederick Myers, New York city, assignor to Henry Smythe, same place.

A flexible slitted chain-cover designed to envelop and travel with the chain, the cover having its ends secured together by stitches or staples straddling the abutting ends at the edges of the slit, and a saddle-piece cemented over the ends.

No. 618,968.—Portable Bath Cabinet. Bettie C. Williams, Deer Lodge, Mont.

A portable and collapsible bath-cabinet comprising a pliable envelope closed on all sides thereof and having the sloping top with the neck-opening therein and also provided with the sheaths at the corners and edges thereof, the collapsible and separate neckband united detachably to the envelope-top around the edges of the opening therein and having a draw-string by which the band may be contracted to fit closely around the user's neck, and a sectional stiffening-frame having its members fitted within the several sheaths, the ends of the horizontal and vertical frame members being contiguous at the corners of the envelope.

DRUGGISTS' SUNDRIES.

No. 618,865.—Pessary. Earl B. Gray, Salt Lake City, Utah.

A pessary comprising a flexible cup-shaped base-piece, a flexible cap secured thereto, and a stem having its lower end detachably secured to the cup by the flexible cap.

No. 619,002.—Eye-cup. Benjamin F. Stephens, New York city.

The combination with the two eye-cups and their tubes, of an expansible air-ball and two flexible branches extending out from the air-ball, one at each side thereof, and having quarter-circle bands for connecting the air-ball with the tubular stems of the eye-cups.

No. 619,588.—Tobacco Pouch. William N. Lockwood, Concord, Mass.

A flexible rubber tobacco-pouch having a double-bottom, formed by an inner ply or flap, to constitute a chamber, the inner ply being perforated and disconnected from the outer ply, along a portion of its edge to form a mouth.

No. 619,845.—Syringe. William P. Shattuck, Minneapolis, Minn.

In the syringe, two meeting tubes forming a tight overlapping joint, the outer tube being rigid and the inner flexible and yielding and placed loosely against the outer tube and adapted to be held thereto by pressure of the liquid within the syringe, and a valve arranged to close the end of the flexible tube when it is in its normal position.

No. 620,087.—Music-ball. Julius Stein, Boston.

A toy music-ball, having a spherical air-tight collapsible rubber case or envelope and an inwardly-projecting sound or music-producing device comprising a sleeve contained in the cavity of the case, the outer end of which is small and which is attached to the envelope to be within the outer surface thereof, and which sleeve extends very nearly across the cavity of the ball and has a passage extending from its inner end to the outer air, which passage is throttled by a narrow strip of thin rubber stretched across its opening, and whereby air is kept in the ball except when it is forced therefrom by pressure applied to the ball upon each side of the sleeve.

MECHANICAL GOODS.

No. 619,361.—Metallic-Rim Rubber-Tread Horseshoe. Darbey B. Stephens, Minneapolis, Minn., assignor of eleven-sixteenths to Andreas M. Miller, James G. Harris, and William B. Topham, Duluth, Minn.

A metallic-rim rubber-tread horseshoe comprising in its construction a base portion constructed of a single piece of solid rubber made in the shape of a horse's hoof and vulcanized or pressed onto a metallic rim, the rim comprising in its construction an upwardly and inwardly inclined wall and an inwardly extending horizontal flange, the latter provided with long spaced apertures and long, downwardly-extending projections, the projections being imbedded in the rubber base and the upper surface of the horizontal flange of the metallic attaching-rim being covered with rubber and connected to the tread-portion proper by long webs of rubber which extend through the long spaced openings in the flange, the flange being also provided with nail-holes, metallic toe and heel calks, the end calks being entirely surrounded by the rubber constituting the tread-portion; and counter-sunk depressions on the under side of the tread-portion to assist in driving securing-nails.

No. 619,784.—Steam-packing Gasket. Edward L. Perry, Paterson, N. J.

A steam-packing gasket of rubber or other elastic material and square or flat-sided in cross-section, a central metal core extending through the gasket and the meeting ends of gasket having wedge-shaped extremities and locking-shoulders, and a strip of fibrous material wrapped around the joining ends to hold them together while being vulcanized.

No. 619,908.—Machine-belting. Heinrich T. Reuter, Boston.

A machine-belt comprising a filling, and the parallel strips attached to the filling, so as to form a channel between their inner edges, in combination with an encompassing envelope having its free lapped edges fixed within the channel.

No. 620,019.—Horse-shoe-pad. Daniel Cruise, New York city.

A horseshoe-pad formed of elastic material and provided with an indurate strip embedded therein and presenting a part of its surface to the ground, and fastening devices running lengthwise along the strip and passing through the same and through the pad.

No. 620,253.—Elastic-tread Horseshoe. Henry Schmid, Buffalo, N. Y.

An elastic-tread horseshoe consisting of the shoe proper having a curved securing plate provided with an inclined wall surrounding its outer edges, and a sliding bolt attached to the inner side of its toe portion, an elastic cushion or tread with outer inclined wall and inner retaining-flange, a curved locking piece adapted to rest against the inner retaining-flange of the tread and provided at its toe portion with a groove for the locking reception of the sliding bolt on the shoe proper, and means for removably securing the ends of the locking-piece to the heel portions of the shoe proper.

No. 620,356.—Device for Turning Rubber Tubes. William A. Pratt, Stamford, Conn.

In an apparatus for turning tubes, the combination with a short tube interiorly tapered adjacent one end and adapted to be placed within the rubber tube to be turned with the end of the latter projecting beyond the end of the former, of a rod tapered at one end and provided with a transverse slot in its tapered end, the rod being adapted to be inserted within the tube and to engage the end of the rubber tube to cause the same to impinge between the inner surface of the tube and rod.

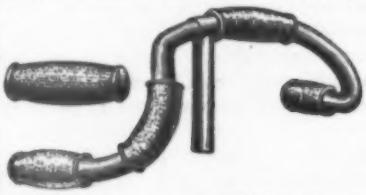
DESIGN PATENT.

No. 30,261.—Comb. Frederick William Grell, New York city, assignor to the American Hard Rubber Co., New York.

NEW GOODS AND SPECIALTIES IN RUBBER.

A NEW LINE OF BICYCLE GRIPS.

THE fact that "bicycle cramp," or numbness of hands, wrists, and arms, so often interferes with comfort in wheeling has led numerous inventors to attempt to find means of prevention or relief. It has been with this end in view that the new line of grips illustrated herewith has been produced. They are the "Perfection" (end) and "Relief" (head) grips, and are referred to as being made of sponge rubber, being unusually flexible, and conforming to any curve of bar and fitting any size. The "Relief" grips, made of rubber and covered with fabric, are readily forced over any rigid end grip already on, with the aid of powdered soapstone. They are made (1) of plain rubber, (2) with absorbent elastic fabric cover, and (3) with soft leather cover. The same firm offer the "Comfort" (end) grip, made with larger opening to slide over and remain on the cork and other end grips. Made by the Ventilated Grip and Manufacturing Co., No. 268 Halsey street, Newark, N. J.



GREENHOUSE HOSE.

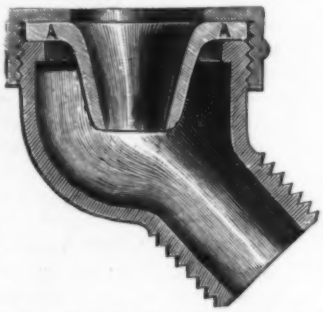
THE tendency in all branches of the rubber industry toward specialization of products, with a view of supplying every branch of the demand with something designed to meet its particular requirements, is illustrated by the bringing out of a grade of hose for greenhouse use. The engraving will give some idea of the method of construction of this hose, which has been based upon a study of the needs of florists and horticulturists. It is made by the Empire Rubber Manufacturing Co. (New York and Trenton, N. J.), who report that they have met with encouraging success in marketing it.

LIFE SAVING PNEUMATIC MATTRESS.

MANY improvements for the comfort and safety of their passengers have been adopted by the different steamship companies, but the introduction of the Pneumatic Mattress is the first improvement for a long time in the line of life-saving apparatus. This mattress is in reality a large air sack, made of strong duck, coated several times with a compound, composed largely of fine Pará rubber. The top and bottom of the air sack are held together by a series of stays distributed at intervals throughout the mattress; the stays render the surface uneven and irregular, thus allowing a free circulation of air between the occupant and the surface of the mattress. To the top and bottom of the air sack a strip of boxing is cemented. When made, the whole is vulcanized, thus welding every part thoroughly together. The mattress is covered with ticking and, when finished, has the appearance of an ordinary hair mattress. A strong cord passes around the mattress, secured at proper intervals, to be used as a "grab line" when the mattress is required as a life preserver. The mattress has strong flotations. An ordinary ship or yacht mattress will support four persons and will sustain a dozen persons immersed in the water, but clinging to it. The device for constructing the Pneumatic Mattress is the invention of A. A. Young, who has invented every practical device for making these goods. Mr. Young has disposed of his latest invention (patented December 27, 1898) to and associated himself with the Pneumatic Mattress and Cushion Co. (Reading, Mass.). This company have equipped the American Line steamships *Paris* and *New York*, the United States battleship *Indiana*, and many yachts with their pneumatic mattresses. They also manufacture a camp mattress, which weighs but 12 pounds and can be inflated in a few minutes; also, boat, canoe, and yacht cushions in large variety.

ROYLE'S PATENT HOSE ATTACHMENT.

ATTACHING garden hose to a smooth faucet is a difficult thing unless one has the little attachment known as the Royle, of which the illustration shows a sectional view. It is made of brass with a threaded end to connect with the coupling on the hose. The screw contains a rubber washer, *AA*, molded in such shape that it will easily slip over any smooth faucet, and the heavier the water pressure, the tighter it holds. It may be slipped off easily when the water is turned off. Manufactured by the Boston Belting Co., Boston.



A PARISIAN RUBBER STORM SHOE FOR DOGS.

THE illustration refers to a set of storm shoes recently brought home from Paris by Mr. Nathan Schwab, of New York, they having been made to order for his dachshund. They are of best quality rubber and show five buttons. It is the proper caper in Paris to provide footwear for pet dogs, and any high-toned pup whose owner fails to furnish storm shoes is not keeping up with the procession. The boots are made by a well-known house, but only for custom trade. Perfect fit is guaranteed. Prices range from 12 francs per set upward, according to the fancy touches applied in finishing. Automobiles in large numbers line up daily at this specialty shop, and fashionable women carry their pets within to have measurements taken. Tourists are falling into the style, and price does not deter them from purchasing a complete outfit for Fido. Storm blankets of rubber and bristle collarettes go with the dog's up-to-date furnishings. *The World* says that the Paris house may open a branch office in New York. The cut is one-half the length of the shoe.

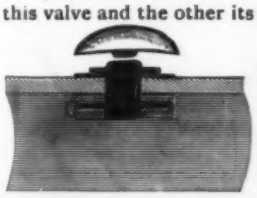
A HOT WATER VULCANIZER FOR TIRES.

THIS vulcanizer is constructed with a hot water jacket lying underneath the thermal or heating plate, and acts as a sheet of water through which the heat passes before reaching the tire, obviating the danger of uneven vulcanization. The lower plate has been extended for the purpose of protecting the tire from any heat that may possibly come from below. Each end of the plate is provided with indentations for holding water, with a view to keeping the ends of the plate and also the tire cool.

The tire is held in place by the upper plate and the pressure screw. The burner is located in the base of the vulcanizer. The improved 1899 burner for this vulcanizer is raised clear of the base and burns freely, with an even heat. This burner is supplied with just enough alcohol to generate the amount of heat necessary to vulcanize a tire under proper conditions. The vulcanizer is automatic, in the sense that the vulcanization is complete when the alcohol is consumed. Patents are pending for this vulcanizer, which is called the "High Pressure" and is made by the National Cement and Rubber Manufacturing Co., Toledo, Ohio.

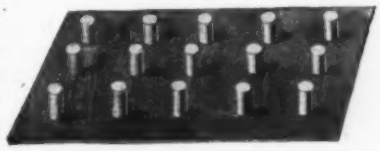
"NO-STEM" SAFETY BICYCLE TIRE VALVE.

ONE of the illustrations indicates the form of construction of this valve and the other its location on the tire, which is designated by a round spot. The cap in place looks like a button, inside like a plug head. The manufacturers state that the safety valve has been thoroughly tested by riding over the roughest, rockiest roads, and also with soft tires on smooth streets without damage of any kind. The "No-Stem" valve obviates the necessity of holes in tires, and does away with valve stems, which are liable to be cut off when riding. Riders are expected to be charged $1.25 for two safety valves, or 75 cents for one. This includes the complete job of mending the old stem hole with the company's metal hole stopper. A sample valve will be forwarded upon receipt of 25 cents. Made by J. C. MacSpadden & Co., St. Joseph, Mo.



SEMI-VULCANIZED PLUGS IN SHEET.

THE illustration shows a novelty in the way of supplying rubber plugs for bicycle tire repairwork which doubtless will commend itself to the trade on the score of convenience. The sheets are canvas backed and are supplied in assorted sizes, there being about 250 plugs to the pound. These plugs are used exclusively in the repair department of the manufacturers, The Mechanical Fabric Co., Providence, R. I.



GLIDDEN'S METALLIC REPAIR OUTFIT.

THE special feature in this bicycle tire repair outfit is that the plug has a hinged head, enabling it to be forced into a much smaller opening than one with a stationary head. The plug is made of metal. It is applied by first screwing the key into the plug, and inserting the plug into the puncture, leaving the flat plate on the outside of the tire. The key is then drawn back until the plug rests flat on the inside of the tire. The flat plate is then screwed fast to the plug, after which the key is removed, when the repair will be complete. Two sizes of plugs are furnished with each kit, to fit ordinary punctures; also, a cutter, to be used when the puncture is too small to admit the plug. The selling agents are Dame, Stoddard & Kendall, Nos. 370-374 Washington street, Boston.

"STAR" CHAIN PUMP RUBBER BUCKET.

THE principal feature of the bucket illustrated here is its flat surface, so reinforced by the ribs that it will fill the tube and prevent its collapsing, thus allowing no water to fall or crowd back. Its construction is referred to as giving rigidity, so that the entire lifting surface of the bucket is always in use, while it has a flexibility that will accommodate itself to any inequalities of tube in pumps. In the cut on the right the "Star" bucket is represented as holding the water, whereas the water is liable to crowd past buckets of some other types. The trade is supplied by Henry C. Freshour, No. 1426 Masonic Temple, Chicago.

FIG. 1.—STAR CHAIN PUMP RUBBER BUCKET.

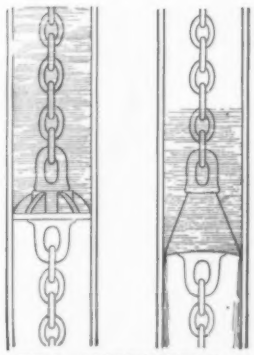


FIG. 2.—PUMP BUCKETS IN OPERATION.

THE "B. G. I." GOLF BALLS.

The Bridgeport Gun Implement Co. (No. 313 Broadway, New York) have been engaged for a year in the manufacture of golf goods, to which they have added balls. They advise The India Rubber World: "These goods are manufactured by ourselves, as we have a large plant, and have gone into the ball manufacture very extensively. There are no peculiar characteristics in our ball; it is simply made of good Gutta-percha, well seasoned, well painted, and put up in tasty boxes, and is fully equal to any imported ball, and, being of American manufacture, should be more readily sold than any other; our marking is particularly good." These balls are carefully hand painted with three coats of special enamel.

THE "E-Z" RUBBER HEEL.

This heel is referred to as having all the good points of solid rubber heels, together with some advantages. They are claimed to wear longer, to be lighter and neater, to be invisible when the foot is on the ground, they do not spoil the appearance of the shoe, and they fit any heel, all the trimming being done on the leather part of the "E-Z" heel. As indicated in the illustration, the device consists of three rubber disks set in a lift of leather. It is applied, after removing the top lift from the leather heel, by putting a screw through each of the rubber disks, after which the "E-Z" leather lift is trimmed down to fit the shoe. The lower part of the picture shows a sectional view of the heel and illustrates the method of its application. Made by The Summers Manufacturing Co., Columbus, Ohio.

THE "HARDMAN" HOT WATER BOTTLE.

This bottle is made in a mold and consequently is made entirely without seams, thus lessening the possibility of leaks developing. There are no strips or patches to tear off. The handle is so fastened as to be independent of the bottle, and cannot come off. The construction is sufficiently novel to have enabled the manufacturers to obtain a patent on it during the past year. They have taken pains to produce these bottles so as to give an ornamental and attractive appearance, which, it is felt, will commend them to the trade and to consumers. Manufactured by The Riverside Rubber Co., Belleville, N. J.

American manufacturers of rubber shoes are turning their attention to the "Plimsoll" or sand shoe, of which great numbers are used in Europe. They must be cheap and fairly good, but it is "even money" that within a year we will scoop the markets.

SOME WANTS OF THE RUBBER TRADE.

The following inquiries come to The India Rubber World from patrons. We shall be pleased to be able to place them in communication with parties able to supply their wants. Correspondence in regard to these inquiries should refer to them by number.

*

[12] The Ventilated Grip and Manufacturing Co. (Newark, N. J.) desire the names of reliable sponge rubber manufacturers.

*

[13] A manufacturer of druggists' sundries wishes the addresses of mold makers, being about to place an order for $2000 worth of work.

*

[14] A subscriber wishes to know where to buy ink of the quality used in marking sizes on rubber footwear.

*

[15] "Can you give me a formula or name of a cement for vulcanized rubber that will resist the action of writing fluids or ink?"

*

[16] "Will you please favor me with the addresses of manufacturers of tin whistles and rubber toy balloons?"

ANSWERS.

[7] Referring to a request for names of manufacturers of rubber nipples for glass fillers for fountain pens, the Seamless Rubber Co. (New Haven, Conn.) write: "We are the largest makers of nipples in the trade. Write to us." R. W. Rhoades & Co., proprietors of the Rubber Stopple Co. (Long Island City, L. I.) also state that they are prepared to supply such goods.

[11] The Manhattan Rubber Shoe Co. (No. 111 Reade street, New York) write that if our correspondent does not want *embossed* drill or sheeting, they are in a position to deliver in any quantity.

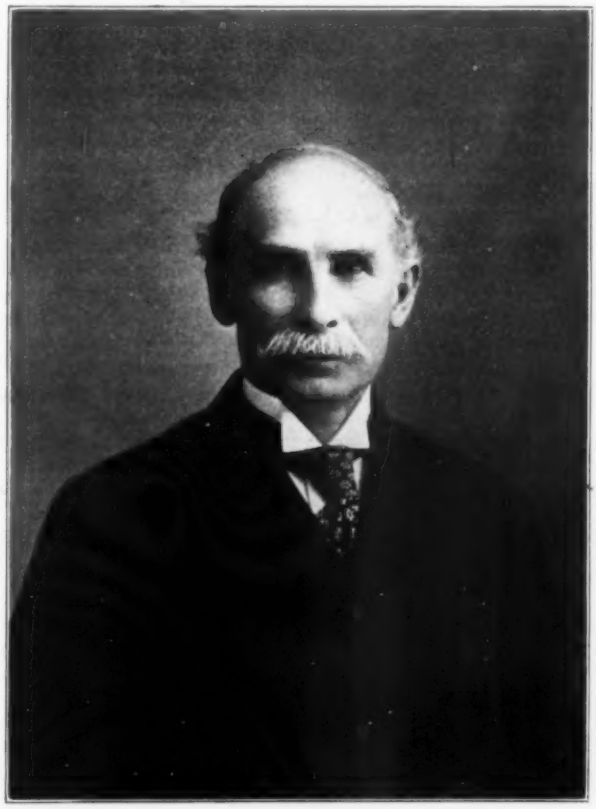
A THOUSAND SETS OF RUBBER TIRES.

There were not a thousand sets of rubber vehicle tires in existence a few years ago; now a thousand sets at a time may sometimes be seen in the wareroom of the Rubber Tire Wheel Co. (Springfield, Ohio), in spite of the active demand which prevents a rapid accumulation in stock. The illustration above is based upon a photograph of the Springfield company's wareroom taken when it contained the number of sets of tires mentioned.

DEATH OF JOSEPH A. MINOTT.

THE rubber trade heard with widespread regret of the death of Joseph A. Minott, secretary of the Goodyear Rubber Co., which occurred on the evening of March 24, at his residence in Scotland road, South Orange, N. J., after an illness of nine days, from pneumonia.

Joseph Albert Minott was born March 15, 1836, in Albany, N. Y., where his father, Joseph Minott, who was of New England descent, was engaged in mercantile affairs. He was educated in private academies in Albany and Westford, Mass. At the age of eighteen he came to New York, where, for three years, he was employed in a wholesale clothing house. In 1857 Mr. Minott became connected with the "India-Rubber Warehouse" of William D. Russell, at No. 201 Broadway, which had the selling agency for the Beverly Rubber Co., who had a factory at Beverly, Mass., for making rubber clothing under the patents of Francis Baschnagel and Hiram L. Hall. In the same year Mr. Russell went to the factory and became president of the company. At the same time, Frederick M. Shepard, who had been for four years secretary of the Union India Rubber Co., retired from that position, and succeeded to the business of Russell, at the same location. Mr. Minott continued in the store, and in 1863 the business was incorporated as the Rubber Clothing Co., with Mr. Shepard as president and Mr. Minott as secretary. A large business was built up in the Beverly goods, to which they gradually added other lines. The store was removed in 1861 to No. 345 Broadway, in 1862 to No. 347, in 1867 to Nos. 361-363, in 1869 to Nos. 365-367, and in 1872 to No. 341 Broadway. In this year the Goodyear Rubber Co. was organized, also with Mr. Shepard as president and Mr. Minott as secretary. The firm name Rubber Clothing Co. was also retained. In 1880 the business was removed to No. 487 Broadway, and in 1895 to Nos. 787-789, the present location. In 1872 the firm purchased the rubber business of H. G. Norton & Co., with the exception of the druggists' sundries department, which was conducted for a few years by Theodore E. Studley, who eventually joined the Goodyear company. The Goodyear company in 1872 opened a branch house in St. Louis, to which they added, from time to time, branches at Buffalo, Chicago, Kansas City, Milwaukee, St. Paul, San Francisco, Portland, and Washington, D. C.



JOSEPH A. MINOTT.

In 1876 there was a change in the ownership of a controlling interest in the Union India Rubber Co., when Mr. Shepard become president and Mr. Minott, secretary, which offices they continued to hold until that company closed its affairs, in 1897.

Mr. Minott had charge particularly of the purchasing department of the various companies, which was on a large scale, involving the buying of supplies not only for the New York house, but for all the branch stores. It was his custom to visit the branches twice a year, with the exception of the two on the Pacific coast, which he did not reach more than once in two years. He become known to a wide circle of the trade, and was universally liked by those with whom he came in contact, on account of his many admirable qualities. As Mr. Shepard wrote to the Editor of THE INDIA RUBBER WORLD, two years ago: "It is the good fortune of but few to have such a close business relation without a disturbing difference, as has existed between Mr. Minott and myself, for more than thirty-five years." Mr. Minott had a charming home life, to which he was greatly attached. It is understood that he left a very comfortable fortune.

In 1858 Mr. Minott removed to East Orange, N. J., and about ten years ago to South Orange. He was treasurer of the Orange Water Co., and of the East Orange Safe, Trust, and Deposit Co. He was a director in the Victoria Fire Insurance Co., and one of the trustees in the United States for the Union Assurance Co., of London. He was a member also of the Munn avenue Presbyterian church, in East Orange, of the New England Society of Orange, of the Essex County Country Club, and of the Riding and Driving Club of Orange. Mr. Minott married Miss Mary Kilburn Mandeville, of Orange, who survives him with five sons and an unmarried daughter. One of the sons, Fred S. Minott, is connected with the Goodyear Rubber Co.; Arthur Minott, some time in charge of the branch house at Portland, Oregon, is now in ill health; William A. Minott is with the Mercer Rubber Co., (Trenton, N. J.); Joseph Otis Minott is an artist; and Harold Minott is still at school. Another son, Samuel J. Minott, who was engaged in the insurance business, died in May, 1898.

Funeral services were conducted at the residence in Scotland road, at 2.30 P. M., on March 27, by Mr. Minott's pastor, the Rev. Dr. Ludlow, and the interment was at Rosedale cemetery. The attendance embraced representatives of a number of houses in the rubber trade.

THE NEW BEACON FALLS RUBBER PLANT.

THE property of the Beacon Falls Mill and Power Co. (Beacon Falls, Conn.), consisting of a factory building 50 × 330 feet, three stories high, with basement and large attic, together with about 230 acres of land, with fine water power controlling the whole volume of water in the Naugatuck river, with a fall of 23½ feet, including, also, fifty-eight tenements, store building, meat-market, etc., was purchased last September by Messrs. J. H. Whittemore, Harris Whittemore, and A. D. Warner, of Naugatuck. The building had formerly been used as a woolen mill, and is of approved factory construction and well located. Work was begun about October 1, looking to converting the mill into a factory for the manufacturing of rubber boots and shoes. The power plant originally consisted of two 125 horse power turbine wheels, and one old style breast wheel, giving ample power for the needs of the woolen mill. The old wheel was taken out and contract made for two new 125 horse power turbines and one 100 horse power turbine for electric lighting. A pair of 300 horse power engines are also being installed. Two new boilers with a capacity of 180 horse power, each, are now in place. The steam plant is to be used only in case of emergency, as it is believed that the water power is sufficient except for a day, now and then, when the river is extremely high, and possibly for a short time during very dry weather in summer. The mill has been newly equipped with automatic sprinklers and fire hydrant system, including a 1000 gallon fire pump, in addition to a 6000 gallon pump used in elevator system, but which can be utilized in case of fire, if necessary. Two hydraulic elevators connect the different floors, and all openings have been secured by automatic fire-doors. The engines in a separate building connect direct with the main shaft and transmission of power from the water wheels, as well as from the engine is by rope drives. The machinery all through the mill is of the very latest pattern.

A short time after the property was purchased, Messrs. George A. Lewis and Tracy S. Lewis, of Naugatuck, who were formerly identified with the Wales-Goodyear company, resigned their positions to cast their lots with the new concern, Mr. George A. Lewis, as is well known, having been in active management of the Wales-Goodyear company for over thirty years.

A charter, under the name of The Beacon Falls Rubber Shoe Co., has been obtained, and the organization will be completed very soon. The principal stockholders are J. H. Whittemore, Harris Whittemore, George A. Lewis, Tracy S. Lewis, Dr. Edwin Lewis, and A. D. Warner. It is understood that George A. Lewis will be president and Mr. Warner general manager. The success which these gentlemen have met with in their business career has enabled them to secure the services of the best men for every department.

A great deal of attention will be paid to lasts, as well as workmanship and quality. The new company expect to sell all goods direct to the retail trade, and have secured the services of A. D. Wentz, of Chicago, as general selling agent. Mr. Wentz for sixteen years was connected with the western agency of the Boston Rubber Shoe Co., then for three years was the western representative of the Wales-Goodyear Company, and for four years later was a jobber of the latter company's goods. Territory east of Ohio will be handled from factory headquarters; Ohio and the west from Chicago headquarters. Prices have not yet been made, as they will be based upon the cost of the goods. As soon as this is determined, a very complete illustrated catalogue and price list will be issued, with a view to enabling retailers to place their orders intelligently by mail. A preliminary pamphlet is out announcing that "Beacon Falls" rubbers will be on the market April 1.

Owing to the severe winter, it seemed for awhile almost impossible that the plan to start the new mill on March 1 could be carried out, but on that day, at 1 P. M., the gates were opened and the wheels began to turn, since which time the mill has been operated every day, washing, drying, and grinding rubber, and a line of sample shoes has been made. The capacity of the factory will be from 12,000 to 15,000 pairs a day, depending largely, of course, upon the percentage of boots made, which, if large, curtails the number of pairs produced, but increases the value.

A LETTER from a patron of THE INDIA RUBBER WORLD mentions the receipt of an order for goods from Mouthaan & Co., of Amsterdam, and asks for information concerning them. As stated in our January issue, this firm was included in a list of Amsterdam merchants in doubtful standing, drawn up by the chief of police in that city several years ago, and we have since heard of rubber concerns who filled their orders without being able afterward to get payment for the goods. It may be added that the same means exist for getting credit ratings for mercantile firms in Amsterdam as in this country, and that there is no need for our exporters to take risks on a matter of this kind.

Veston de Cheval. Pelerine. Irlandais. sans manches, dos aérifère. Cocher. Capote infanterie. Coachman. Paletot droit.

FRENCH STYLES IN WATERPROOF COATS FOR MEN.

[From the announcements of A. Maurel & Fils, Paris.]

THE FENTON ARTIFICIAL RUBBER.

FENTON'S artificial India-rubber, which is a new substitute that is now being exploited in England and Germany, is not without merit in spite of the adverse opinion of the distinguished chemist quoted in another column. The patentee was kind enough to send a sample of the gum to the Editor of THE INDIA RUBBER WORLD, and also to write concerning its use. The gum looks not unlike a high grade recovered rubber (spring stock, not shoes) just after it comes from the devulcanizer and before it is sheeted. It is quite tough and has considerable spring. It seems to be neutral and has no free oil apparent. Its price, which is 16c. per pound, seems a trifle high. If it could be put on the market at the price of reclaimed rubber it would probably find a ready and large sale. All this, of course, providing that it compounds, vulcanizes, and lasts as the promoters believe it will. Two compounds suggested are:

FOR SHEET GOODS.		FOR INSULATING WIRE.	
Fenton	5 pounds.	Fenton	10 pounds.
Rubber	5 "	Rubber	10 "
Whiting	10 "	Litharge	5 "
Oxide of zinc	5 "	Sulphur	1 "
Oxidized oil	3 "	Magnesia	1 "
Sulphur	1½ "		
Prepared lime	1 "		

[Cure, in each case, 240° to 280° F.]

Users are cautioned against moisture and imprisoned air in the second compound as likely to cause blisters.

It will be observed that the formulæ quoted above are distinctly English; that is, they call for two ingredients that are little used by our largest manufacturers. It would be interesting to know what this rubber would develop in a series of compounds in which it could be compared with a high grade recovered rubber.

NOT ALTOGETHER NEW.

AN English patent recently granted to Charles Curtis, of No. 222 Devonshire street, Boston, is described at such length in our English contemporary that it seems worth some mention in these columns. The invention in brief is the combination of a solution of rubber, such as rubber cement, in which is mixed a little sulphur and a certain amount of dry pulverized chalk. Chemical wood pulp is then taken, beaten so that the fibers are practically separated from each other, and mixed with the cement, sulphur, and chalk. The mixture is then sheeted and vulcanized at low temperature. The inventor also adds a small proportion of lampblack to the mixture. His compound for a substitute for rubber is 50 per cent. wood pulp, 25 per cent. rubber cement, 20 per cent. chalk, 2½ per cent. lampblack, and 2½ per cent. sulphur. Granting for the sake of argument that this compound would be valuable for solid tires for vehicles, as the inventor claims, one is led to wonder how the patent went through without interference, and how it can be protected if infringed. There is already an English patent covering the use of rubber, sulphur, chalk, and hemp fiber. There are the Parkesine compounds, protected by English patents, where cotton, jute, and other fibers and fiber dust are used to strengthen a rubber compound; and a number of other patents (also English), in which hard wood veneer dust, cocoanut fiber, flocking, sawdust, in fact nearly all cellular fibers, are used in in connection with rubber and chalk. Turning to American patents, there is a well known toughened compound, made of India-rubber, sulphur, flax fiber, and rye flour. There is also one which calls definitely for wood pulp and rubber, compounded as usual (who can say that the old-fashioned chalk cement consisting simply of rubber, chalk and sulphur, is not covered by that phrase?), and if that is not enough, there is another patent calling distinctly for sulphite fiber and rubber.

WHERE OUR RUBBER EXPORTS GO.

THE exports from the port of New York during February, classed as "India-rubber goods," amounted in value and were consigned to different countries as follows:

Great Britain	$14,907	Brazil	$ 555
France	3,075	Argentina	25
Germany	4,064	Ecuador	399
Austria-Hungary	515	Colombia	519
Belgium	1,300	Australia	4,345
Holland	1,387	New Zealand	3,380
Italy	203	Tasmania	350
Spain	175	China	114
Denmark	603	Japan	199
Norway	1,048	British East Indies	84
Mexico	1,197	British Africa	7,911
Central America	220	Other Africa	1,204
Cuba	1,253	British North America	403
Porto Rico	128		
British West Indies	135	Total	$42,902
British Guiana	204		

The value of such goods exported from New York amounts usually to something less than 60 per cent. of the total for the United States. These statistics do not embrace dress shields, which were exported from New York during February to the value of $22,337, or clothes wringers, to the value of $8553, or such rubber goods as may have been embraced in exports classed as electrical material, bicycle material, dental material, and the like. It is probable, too, that some rubber may have been included in the exports for February classed as: Belting, $8964; hose, $1412; packing, $2937; and valves, $1062. Crude India-rubber was shipped from New York to the value of $70,330 and rubber scrap valued at $17,356. The exports of "India-rubber goods" to Cuba are shown in the table above; other exports to that country were: Belting, $3312; packing, $1750; hose, $910.

MILES OF RUBBER ELEVATOR BELTS.

[5280 feet=1 mile.]

AN important feature of the equipment of the Hoosac tunnel elevator recently completed at Charlestown, Mass., for the Fitchburg Railroad Co., is the rubber belting which is used as carriers for the grain in the various galleries, and to which the buckets are attached for lifting the grain to the large storage bins. The contractor for the elevator, James L. Record, of Minneapolis, Minn., awarded the order for the belting to the Boston Belting Co. It comprised about 7500 feet of 36-inch four-ply, 1600 feet 38 inch four-ply, and 4800 feet of 22-inch six-ply, besides a quantity of narrower belts. The total weight of all the belts was upwards of thirty-five tons. The longest 36-inch four-ply belt measured 1500 feet, and several others of the same width were more than 1000 feet long each. Each of the 36-inch belts carries about 8000 bushels of grain an hour. The belting in the original Hoosac tunnel elevator—built in 1881–82, and destroyed by fire in February, 1898—was supplied by the Boston Belting Co., and the excellent satisfaction which it had always given was a strong recommendation for the company, and carried considerable weight in its favor in connection with the placing of the contract for belting in the new elevator just finished. Some of the original belts made in 1882, which were not destroyed by fire, are in first class condition today and are doing good service in the present elevator.

RANDOM NOTES FROM PARA.

To the Editor of The India Rubber World: A custom house has been projected, to be located at some point on the boundary between Brazil and Bolivia, with the idea that it may prove the starting point of a future city. According to Don José Paravicini, the Bolivian minister to Brazil, who was recently in Pará, a suitable location would be a few miles from the ancient town of Caquetá, to-day of no importance, but so situated as to attract the export trade from Bolivia which now finds its way to the Pacific coast, in the event of the improvement of the navigable rivers emptying into the Amazon. Thus the great river would become, more than ever, the commercial artery of the two republics. Minister Paravicini considers this enterprise to be of the greatest importance, now that the boundary question has been decided.

In the federal congress, at Rio de Janeiro, a motion has been offered to authorize the government to revise the tariff schedules with a view to favoring imports from those countries which import coffee and India-rubber from Brazil.

It is estimated that in Amazonas state this year the budget will show a surplus of 10,000,000 milreis (=$5,460,000 at par of exchange), due chiefly to the extensive trade in rubber which centers at Manáos. "An export duty of 20 odd per cent. on rubber," says the Rio *News*, "is a mine of wealth for the Amazon states in these times, and is better than coffee or any other product."

Dr. Vicente Miranda, a civil engineer, is writing for *A Provincia do Pará* an interesting series of articles on the little known islands of Mexiana and Caviana, which lie beyond the island of Marajó. The length of Mexiana, the smaller, is estimated at 32 miles and the width at 14 miles. The forests along the coasts of these islands, as well as on the margins of innumerable small streams, are declared to be particularly rich in rubber. Navigation around these islands has been discovered only recently to be entirely safe.

The cost of living in Pará is very high. Imagine paying 3$000 (about 50 cents at present exchange) for a pint of milk or 24$000 (or $4) for the laundrying of a gentleman's white suit!

GRAO PARA.

Pará, Brazil, March 3, 1899.

GUTTA-PERCHA FUSE IN MINING.

The use of Gutta percha in mining is stated to be on the increase in this country, large amounts being imported from Germany. The domestic manufacture of fuse has been confined mainly to the cotton-taped quality, the fuse being wrapped spirally with one, two, or three layers of tape, chemically treated for protection against moisture. The leading producers are the Climax Fuse Co., New York and San Francisco; Ensign Bickford & Co., Simsbury, Conn.; the Western Fuse and Explosives Co., San Francisco; and the California Fuse Co., San Francisco. The first two concerns named made Gutta-percha, as well as cotton-taped fuse. The German-American Gutta-Percha Fuse Works, incorporated at Chicago, in 1895, with $200,000 capital, are understood never to have started in business. The National Gutta-Percha Co., incorporated at Denver, Col., in 1898, with $40,000 capital, are also reported to have done nothing. There has lately been incorporated at Denver the Insoloid Fuse Co., to manufacture a fuse covered with a new compound of Gutta-percha, with a view to competing with the imported German product. The advantages claimed for Gutta-percha are that it is not permeable by water and that it is less liable to crock than the tape-wound fuse.

STILL ANOTHER SOURCE OF RUBBER.

The secretary and managing director of the Musa River Plantation Co., Limited, who are operating at Samarai, New Guinea, writes to The India Rubber World that the *Ficus elastica* (the rubber tree of Assam) is indigenous to that part of the island, and that until they see reason to plant a better species—if there is a better one for that region—they will devote their attention to this tree and its product. This enterprise is the result of explorations made by Dr. Cecil Vaughan, an Englishman, who visited New Guinea as early as 1884.

In his "Cantor" lectures on India-rubber, Dr. Morris says of rubber from New Guinea, which lies east of Borneo and is separated by a distance of only 126 miles from the northernmost point of North Australia. He quotes from various authorities evidence of the existence of rubber on that island. The exports of New Guinea rubber in 1896–97 were estimated at 60,000 pounds, of the value of £7000. The price quoted in London, July 1, 1898, was 2*s.* 8*d.* to 2*s.* 10¾*d.* per pound.

Not long ago Australian newspapers printed news from Cooktown, New Guinea, mentioning that two parties were working for India-rubber near Mambare, also on the coast, pending the arrival of supplies and carriers for use inland.

POINTS FOR USERS OF BELTING.

The use of belting in driving machinery is discussed by an expert in the *Age of Steel*. One point noted is that a majority of belts are too short. For this the architect of the mill—those fellows who get up blue prints—are generally to blame. A belt fifty feet long will outlast by far one that is only twenty-five feet. The slack of a belt will enable it to withstand and recover from the shock of the variable load put upon them. The additional cost of a mill arranged for all the belts to be reasonably long will be repaid many times over in the saving of belts and the loss of valuable time occasioned by short belts breaking. Still another cause of belts, and especially large ones that are used with a tightener, breaking is that entirely too much weight is put on the tightener—in the tightener boxes. The object of a tightener is to prevent slipping of the belt. If the tightener is not heavy enough to prevent this, then a large box is put on, or adjusted by weights to the frame. Into this box, without any judgment whatever, hundreds of pounds of old castings or brick are placed to stop the belt from slipping. No mathematical calculation whatever is used. A thousand pounds of extra weight is often used when fifty pounds would answer. The result is that the belt is under a constant and severe strain night and day.

The United States gunboat *Wilmington*, on which Commander Chapman C. Todd was recently cruising in Venezuelan waters, was instructed to proceed as far up the Amazon river as possible, for the purpose of exploring the practically unknown regions above Manáos. The object is to ascertain something regarding the character of the people, the resources of the country, and the possibilities of extending American trade there. She arrived at Pará on March 10.

William S. Armstrong, who owns a rubber plantation in Nicaragua, writing from Natalbany, La., invites correspondence from persons wishing to purchase rubber tree seeds.

Attention is called to the advertisement, on page xviii, of a new book on "Crude Rubber and Compounding Ingredients."

NEWS OF THE RUBBER TRADE.

THE American Commercial Rubber Co. (Elizabeth, N. J.), the incorporation of which was reported last month, have been organized by the election of D. E. Stelle as president and Charles F. Hart as secretary. Work was begun about the middle of March, in the plant owned formerly by the Pacific Rubber Co. The principal business at present will be waterproofing for the mackintosh trade, without the manufacture of garments, though the company will be prepared to make mechanical goods.

=The Oneida Rubber Tire Works (Oneida, N. Y.) have put up an additional building, 50 × 50 feet, and increased their working force about one-third. Their rubber tire business covers solid tires put on under the Kelly (Springfield) patents, cushion tires of their own design, and pneumatic vehicle tires of various makes, which puts them in a position to supply about what any customer may desire.

=The L. Candee & Co. (New Haven, Conn.) began a two weeks' shutdown at their rubber shoe factory on March 18. Last spring they were closed for five weeks.

=S. B. Thing & Co., wholesalers of shoes in Boston, have purchased the large stock of rubbers carried by The Tuttle-Smith Co. (Boston), whose assignment was reported in the last INDIA RUBBER WORLD.

=Edward Otis Cummings has become a partner in the business carried on at No. 290 Washington street, New York, under the firm name of William H. Cummings & Sons. They are large handlers of rubber waste.

=A representative of a large western rubber factory is reported to have visited St. Louis lately, where he bought all the rubber scrap in sight and contracted for all arrivals for several months to come.

=D. Klock, Jr., & Co., the rubber goods dealers at Troy, N. Y., who were burned out on February 13, suffered a second loss from fire on March 14. After the first fire such of their stock as was worth saving was stored in another building, which was burned on the last date mentioned. The stock was fully insured. The firm were already conducting business in a new store.

=The directors of the La Crosse Rubber Mills Co. (La Crosse, Wis.), at a meeting on March 10, decided to build an addition to the factory that will double their capacity, as preferable to working their present capacity over time. There are now 240 hands employed.

=The Narragansett Web Co. (Newport, R. I.), at the annual meeting in March, reëlected their officers, as follows: H. C. Stevens, president; H. Bull, Jr., vice president; G. E. Sawyer, secretary; C. A. Hammett, treasurer; G. M. Thurlow, general manager; John T. Fales, superintendent.

=In a suit involving 50 shares of stock in the India Rubber Co. (Akron, Ohio) their value is stated at $11,500, or $230 per share of $100.

=An injunction was issued in the United States circuit court in New York, on March 6, on the application of Morgan & Wright, restraining the Manhattan Rubber Co. (New York) from making or selling the style of inner tube tires patented by the plaintiffs.

=The yearly amount of the rubber goods trade of Baltimore was stated at $1,600,000, in a speech by Alexander H. Helper at the annual banquet of the Baltimore Shoe and Leather Board of Trade.

=The Sterling Supply and Rubber Co. (Providence, R. I.) made an assignment on February 27 to Cornelius A. White. He reports that the stock, at cost, amounts to $2246 and the liabilities to $3561. The business was established two years ago by Moses W. Brown, J. A. Proctor, and D. A. Marsh, but since May last has been conducted by Brown alone.

=The Massachusetts Rubber Co., who conducted a sale of cheap mackintoshes at Union square, New York, in the winter, continue to be "forced out of the trust," but this is not their only trouble. They were trying to do business lately at York, Pa., at "33 cents on the dollar," but reported that they were "greatly hampered in not being able to fill up many sizes, because the run upon their stock was so great."

=The National Cement and Rubber Manufacturing Co. (Toledo, Ohio) have completed a deal by which the stock, good-will, trademarks, patents, and patterns of the Red Cross Rubber and Cement Co. (Rochester, N. Y.) are absorbed by consolidation with the Toledo concern. All the business will be conducted hereafter at Toledo. These rival companies were formed to succeed to the late business of Arlington U. Betts & Co. of Toledo.

=Notices were posted at the Woonsocket Rubber Co.'s Millville factory on March 7 that work would not be resumed for three weeks. The old boilers have been replaced by a new battery of ten, making necessary a heavier system of steam pipes, which was installed during the shutdown.

=An interesting and attractive looking little periodical called *Graphite* has been started by the Joseph Dixon Crucible Co. (Jersey City), "for the purpose of establishing a better understanding in regard to the different forms of graphite and their respective uses."

=Mr. Thomas A. Eddy, Jr., of Flint, Eddy & Co. (New York), arrived recently in Manila, whither he had gone to consider the establishment there of a branch of the firm's exporting business.

=A representative of Messrs. J. M. Ceballos & Co., who do something in the rubber importing line, and another New York firm have obtained from the authorities in Cuba permission to establish a bank at San Juan.

=The Rubber and Vulcanite Co., Limited, have been registered in London, with £12,500 capital, to manufacture goods of India-rubber, Gutta-percha, and similar substances.

=The India Rubber Co. (Akron, Ohio) advise THE INDIA RUBBER WORLD that since January 1 they have added to their factory a three story brick building, 48×80 feet, for machine shop, crating room, and storage room; also, a new warehouse 20×80 feet. They have added three new presses and other facilities, which practically doubles their capacity for bicycle tires, and one vulcanizer, which increases by 25 per cent. their capacity for solid rubber tires.

=The Seamless Rubber Co. (New Haven, Conn.) have obtained a building permit for a three story brick addition to their factory, 40 × 100 feet, to be used for offices, store room, packing, and shipping departments. Plans have been prepared. They employ 300 hands.

=The Boston Woven Hose and Rubber Co. (Boston), notwithstanding various rumors to the contrary, are still making "Vim" tires, under the control of the assignees and trustees.

=The American Hard Rubber Co. were reported lately to be adding to their working force at College Point, L. I.

=Mr. Robert D. Evans recently advertised in the New York papers the loss of United States Rubber certificates, amounting to 225 shares of preferred and 200 shares of common stock.

=The Peoria Rubber and Manufacturing Co. (Peoria, Ill.) advise The India Rubber World: "We are now producing from 400 to 500 pairs of tires daily, and up to this time have found a ready market for the quantity we are producing. As soon as the season begins to open up in earnest, we expect to increase our production to 600 or 700 pairs of tires daily." They are making single tube tires in two grades—the "Peoria," guaranteed, and the "Velvet," unguaranteed. The company are represented in the East by the New York Sporting Goods Co., No. 61 Nassau street.

=Rumors are afloat regarding an attempt to consolidate the manufacturers of elastic fabrics, of whom there are about thirty in the United States. The banking firm of Lee, Higginson & Co. (Boston) are credited with having charge of the negotiations, but persons supposed to be interested, who have been asked for details, say that they are unacquainted with the program.

=F. W. Olivier, of the F. W. Olivier Co., Niagara Falls, N. Y., after having been in ill health for a year, is now fully recovered and is busy pushing the sale of mechanical rubber goods.

=Edward T. Smith, one of the popular salesmen for F. C. Howlett & Co., Buffalo, N. Y., recently paid a visit to rubber factories near Boston. He has met good success on the road.

=F. C. Howlett & Co. (Buffalo, N. Y.) send us their new tire price list. W. A. Clapp is manager of their tire department. They handle the "New Brunswick," "Kangaroo," and "Iroquois" brands.

=James W. Cross, president of the Fall River Rubber Co. (Fall River, Mass.), announces that he will, on about April 3, open the rubber store at New Bedford, Mass., under the style of the New Bedford Rubber Co.—K. W. Hayward, proprietor, and James W. Cross, manager. The store is located at No. 128 Purchase street. Mr. Cross's experience in the rubber trade and acquaintance with this particular field can hardly fail to win success in the new undertaking, which does not involve his retirement from the Fall River business. The Editor of The India Rubber World regrets his inability to accept an invitation to the opening of the new store.

=John H. Clark, of the United States Rubber Co. (Nos. 9-15 Murray street, New York), has been appointed special selling agent for the "Jersey" brand of rubbers, in addition to the "Meyer" brand, with which he has been so long identified. A good many new lasts have been added to the Meyer line for 1899-1900.

=The Lawrence Felting Co. (Woonsocket, R. I.), it is understood, will have no connection with the American Felting Co., recently incorporated in New Jersey, with $5,000,000, to control the manufacture of felt goods in this country. The Lawrence factory is controlled by the United States Rubber Co. and is not manufacturing for the trade.

=The Goodyear Tire and Rubber Co. (Akron, Ohio), sued for alleged infringement of the vehicle tire patents owned by the Rubber Tire Wheel Co. (Springfield, Ohio), have filed an answer making a general denial. The Akron company announce that they will protect jobbers on all goods bought by the latter while the suit is pending.

=The Celluloid Co. (New York) have declared a quarterly dividend of 1¼ per cent., payable April 1.

=The Fiske Rubber Co., of Bangor, Me., have gone out of business, their stock having been purchased and offered at special sale by a local department store. The business was established several years ago by Henry G. Fiske.

=The Robins Conveying Belt Co. (Nos. 147-149 Cedar street, New York) distributed, on the occasion of the recent annual meeting of the American Institute of Mining Engineers, an attractive pamphlet made up of advance sheets from the 1899 catalogue of the company, illustrating the various applications of their conveying belts. Mr. Thomas Robins, Jr., inventor of this conveying system, is a member of the Mining Institute, before which he read a paper at one of the annual meetings [see The India Rubber World, May 10, 1896], on the principles upon which his system is based. It was the widespread interest attracted by this paper which led him to sever his connection with one of the mechanical rubber companies and establish the Conveying Belt company, which has since enjoyed uninterrupted success.

=Francis H. Robinson, broker in India-rubber, has removed his office to No. 60 Broad street, New York.

=The Lycoming Rubber Co. (Williamsport, Pa.), after experimenting for several years on a snagproof duck boot, feel that they have met with complete success in their "non-snag" boot, which has now been on the market for two years. It possesses toughness and strength in a pronounced degree.

=It's Spring! And all the world's in bud;
The breath of blossom fills the air;
But, Oh, the universal mud—
You've simply got to rubbers wear.
—*United States Rubber Co.'s Calendar.*

=The Saylor Rubber Co. (Franklin, Mass.), incorporated last November to reclaim rubber by a new process, expected to begin operations actively on March 23.

=The Warren Rubber Co. (Warren, Ohio), at their second annual meeting, March 20, reëlected H. H. Pierce, president and general manager; Richard Sibson, vice president; H. E. Pierce, secretary; and E. E. Nash, treasurer. They have done a good jobbing trade, and declared a good dividend.

=The Land und Seekabelwerke Aktiengesellschaft (formerly the cable works department of Franz Clouth—Rheinische Gummiwaaren Fabrik, Cöln-Nippes, Germany) advise The India Rubber World, in response to an inquiry, that the organization of the company for laying a direct cable between Germany and the United States has not yet progressed so far as to permit the publication of further details than appeared in our issue of March 1 (page 156).

=The annual meeting of stockholders of the Gutta-Percha and Rubber Manufacturing Co., will be held on April 5, at 12 o'clock, noon, for the purpose of electing directors and inspectors of election for the ensuing year.

=The oldest active rubber superintendent in the United States is said to be Mr. George Woffenden, superintendent of the Manhattan Rubber Manufacturing Co. (Passaic, N. J.) When a youth he was employed by Charles Goodyear.

=The Home Rubber Co. (Trenton, N. J.) have issued a very complete new catalogue of mechanical rubber goods which shall receive a fuller notice in our next issue.

=The Manhattan Rubber Manufacturing Co. are about to issue a comprehensive new general catalogue.

=A. M. Stickney, president of the Wellman Sole Cutting Machine Co. (Medford, Mass.), is back after a two months' sojourn among the European rubber manufacturers.

=Mr. Kempe, one of the directors of the great Russian American Rubber Co., St. Petersburg, is visiting the United States.

=The Mechanical Fabric Co. (Providence, R. I.) have evidently secured an advertising man who hits out straight from the shoulder, Purchasers of tires should send for his circular entitled "Junk."

=Messrs. Typke & King (London) send us two samples of rubber compounded and vulcanized with and by two of their special productions—golden and crimson sulphuret of antimony. Both of the samples are beyond criticism; in color, finish, texture, and cure they are simply perfect, nor is there the faintest indication of bloom on either one. The firm refer American manufacturers to their agent, Joseph Cantor (No. 149 Church street, New York), for further information.

=The Francis H. Gordon Manufacturing Co. (Harrisburg, Pa.) is the name of a new concern making white rubber collars, cuffs, and shirt fronts.

=What with handsomely framed pictures of a score of the leading American and foreign rubber mills, a great variety of framed diplomas and photographs of rubber exhibits, the warerooms of the Boston Belting Co. are a veritable picture gallery, and of especial interest to visitors whether connected with the trade or not.

=The I. B. Kleinert Rubber Co. (New York) recently moved their city plant, known as the New York Vulcanite Rubber Works, to a new building, No. 199 Wooster street, and giving up the old name now call it "Factory E." of the Kleinert company. Mr. A. C. Squires, the superintendent, who had full charge of the work, was surprised on the day of the removal by the presentation of a handsome crayon portrait of himself, and the most cordial expression of appreciation from the employers of the company.

=The Celluloid Co. (Newark, N. J.) propose to expend $30,000 on a clubhouse for their employés, of whom it is expected that 600 will join a club with monthly dues of 25 cents, to be devoted to its maintenance.

=At the last monthly meeting of the directors of The India Rubber Co. (Akron, Ohio) the board presented a gold watch and chain to Mr. C. H. Wheeler, treasurer and general manager.

=The Goodyear Vulcanite Co. (Morrisville, Pa.) were reported recently to be working overtime.

=The factory of the National India Rubber Co. (Bristol R. I.) shut down on March 31 for two weeks.

=F. D. Balderston, of the United States Rubber Co., reports that the volume of detailed orders for tennis goods this season is larger than on the same date in any previous year.

=The factories of the Woonsocket Rubber Co. are expected to resume work within a week. The "Alice" mill has been closed since February 20.

=The factory of the Lycoming Rubber Co. (Williamsport, Pa.) is shut down for a month, within which time it is expected that the extensive improvements outlined in THE INDIA RUBBER WORLD for January 1 will be completed.

=A recent catalogue of the Champion Button Hole Machine Co. (Boston) is filled with striking testimonials from leading clothing manufacturers regarding their "New Champion" button hole machine. The president of this company is George A. Alden, of George A. Alden & Co., and one of the directors is James Bennett Forsyth, of the Boston Belting Co.

=There has been a change in the Peerless Rubber Manufacturing Co. (New York). C. C. Miller, treasurer, and Brown Caldwell, secretary, have retired from the company, and Wallace B. Flint has been elected to fill the two offices. W. G. Ashmead is assistant treasurer and secretary. Mr. Miller is understood to be recuperating his health in the South, and Mr. Caldwell is in Europe on a wedding tour.

=A good sized bit of rubber tiling, in red, white, and blue, designed to represent the United States flag, catches the eye of most people who pass the front windows of the Gutta-Percha and Rubber Manufacturing Co. (New York.)

NEW DISCOUNTS ON HARD RUBBER.

NEW discounts on hard rubber lists went into effect on March 27, making the fourth advance within fifteen months. Previous advances had been made in January, June, and August, 1898. It is estimated that the total effect of the various revisions of discounts has been to put up prices, on various classes of goods, from 20 to 30 per cent., the difference being due to the fact that, prior to the beginning of the upward tendency, the prices of some goods had fallen to lower level than on some other goods. It is asserted in the trade that, at the beginning of the period mentioned, certain lines in hard rubber were being marketed at less than the cost of manufacture.

AFFAIRS OF THE DUNLOP TIRE COMPANY.

AT the annual meeting of directors of the American Dunlop Tire Co., at Belleville, N. J., Kirk Brown was reëlected vice president and general manager. Thus the management of the company's business in the United States remains in the hands of Mr. Brown, through whose efforts it has been built up, and the policy of the company will continue to be determined by him. The only change made is in the organization of the Toronto branch into a separate company—The Dunlop Tire Co. of Canada, Limited—with $1,000,000 capital. The directors are Richard Garland, former manager of the Canadian branch and now manager of the new Canadian company; Warren Y. Soper, of Ahearn & Soper (Ottawa), who becomes president of the new company; Hon. George A. Cox, president of the Canadian Bank of Commerce; E. B. Ryckman, of Ryckman, Kirkpatrick & Kerr (Toronto); and Edward Gurney, president of the Gurney Foundry Co., Limited (Toronto). Of the stock, $300,000 is preferred, cumulative 7 per cent. This was offered to the public, and the subscriptions amounted to $2,944,000. Mr. Brown says: "As far as Mr. Coleman's suit is concerned, all that we care to say has already been said in a circular letter of which THE INDIA RUBBER WORLD took notice in the issue of February 1." The American company have had twenty-five salesmen on the road this season, with such good results that an enlargement of the factory has been decided upon.

THE TRADE IN MEMPHIS, TENNESSEE.

TOWNER & Co. write: The business outlook in the section of which Memphis is the center is very encouraging for the coming year in the line of manufacturing, and the lumber business in general. Of course the cotton interests, on account of the bad weather and low price of same during the past fall, are somewhat depressed. However, as the market has advanced of late, we believe the coming year will be a very good one in this line, provided of course that the weather conditions are favorable, and prices should be much better for this product.

Regarding the rubber business in this section, we would say that each year brings forth an increased demand for this line of goods, and especially is this true of mechanical rubber goods. There are new industries being added all the time, such as saw mills, stave factories, spoke factories, and some cotton mills, which of course, naturally increase the demand for belting and hose, and we also find that each year brings an increased demand for a higher grade of goods. Even the cotton gins, on which in years gone by they used the cheapest grade of goods, and had to replace them every year, and sometimes twice a year, now buy some of the higher grades of rubber and leather belting and hose, which shows quite an improvement and state of progression in this particular line of business.

We had a very successful year in 1898, and if our hopes are realized, the year 1899 will be still more prosperous. It is our opinion that the rubber business generally will be very successful and satisfactory.

NEW INCORPORATIONS.

The Loewenthal Rubber Co., February 23, under New Jersey laws, to deal in and manufacture rubber goods; capital paid in, $100,000. Incorporators: Rudolph A. Loewenthal (president); Edward Loewenthal (secretary); and William H. Blain (treasurer). The new corporation will conduct the manufacturing department of the rubber reclaiming business of Loewenthal & Morganstern, in the factory at Jersey City. The latter firm style will be retained for use in the buying and selling departments.

=The Atlas Chemical Co. (Newtonville, Mass.), under Massachusetts laws; capital, $10,000. Henry B. Chamberlain, president and manager; J. Cheever Fuller, treasurer. This corporation succeeds to the business long and successfully conducted under the same name by Mr. Chamberlain, who is owner of nearly all the stock and will remain at the head of the concern.

=The Beacon Falls Rubber Shoe Co. (Beacon Falls, Conn.), March 8, under Connecticut laws; capital, $200,000. Further particulars appear on another page.

=The Insoloid Fuse Co. (Denver, Colorado), under Colorado laws; capital, $25,000. J. Fitz-Brind, president and manager. To manufacture mining fuse covered with "Insoloid"—a Gutta-percha compound invented by Mr. Fitz-Brind.

=Mutual Rubber Manufacturing Co. (Trenton, N. J.), March 23, under New Jersey laws; capital, $125,000. Incorporators: Walter C. Titus, William W. Titus, and John M. Maguire.

=The Columbia Automobile Co. (New York), March 22, under New Jersey laws; capital, $3,000,000. Elliott Mason, manager in New York for the Pope Manufacturing Co., is one of the incorporators, and Colonel Albert A. Pope is understood to be back of the enterprise.

=The Berger & Larsen Tire Co. (No. 152 Lake street, Chicago), under Illinois laws; capital, $10,000. To manufacture a detachable bicycle tire invented by Joseph A. Berger, who is secretary of the company. Incorporators: John P. Larsen, Joseph A. Berger, and Bernard Andersen.

=The Metallic Rubber Tire Co., March 14, under New Jersey laws; authorized capital, $100,000. Incorporators: Calvin Thayre Adams, Robert S. Adams, Clarence L. Burger, and Frank M. Burger. To manufacture a soft vulcanized tread for pneumatic tires, studded with flatheaded rivets to prevent slipping and also as a protection against punctures, for bicycles, motors, and other vehicles. The production will begin shortly on a small scale, in Jersey City, N. J. New York office, No. 21 East Twenty-eighth street.

=The Amazonia Rubber and Trading Co., Limited, has been registered in London to acquire that portion of the business carried on by Joao C. G. Vianna, at No. 16 Mincing lane, London, as Vianna & Co., which consists of the receipt of goods for sale and the execution of orders upon commission. The capital is £25,000, of which £15,000 is in 7 per cent. preference shares. The managing director is J. C. G. Vianna, known also as the Baron de Gondoriz, who will be remembered as the promoter of a "corner" in rubber at Pará some eight or nine years ago.

=The Southern Mexico Coffee and Rubber Co. (East Orange, N. J.), March 20, under New Jersey laws; capital $150,000, with $1000 paid in. Incorporators: G. W. Harrison, Horace M. Williams, George B. Smyth, Jr., Oscar L. Lefferts, and Duncan T. McLaren.

=The Mexican Plantation Co., December 12, 1898, under New York laws; capital, $100,000. To form rubber plantations in Mexico. James H. Taylor, president; J. Hobart Herrick, vice-president; Archibald M. Pentz (No. 45 Exchange place, New York) secretary; William S. Gray, treasurer.

BOSTON WOVEN HOSE AND RUBBER CO.

The assignees reported on March 23 that the gross profits of operation under their control from June 16, 1898, to January 1, 1899, reached $87,607.67, and ordinary operating expenses and wages, $100,077.21. The business was practically at a standstill, however, to August 1, 1898. Since January 1, the assignees believe the business will show a profit. They report the total assets, apart from the plant, on January 1, at $696,489.11. The direct liabilities were $1,121,000, and the contingent liabilities (endorsed notes, etc.) $300,000—total, $1,421,000.

Creditors of the Boston Woven Hose and Rubber Co. received from the assignees during the past month an invitation to meet them on March 27, to discuss matters of importance. It is understood that the purpose was to consider an offer for the plant and business of the company—reported to be from the promoters of the new rubber trust, and amounting to $700,000—which was declined. It is further understood that a subsequent offer of $790,000, from another source, was also declined. An offer from a third source, of $850,000, is now said to be under consideration, being from parties who presumably represent the original stockholders.

INDIVIDUAL MENTION.

We regret to hear of the death of Mrs. George A. Lewis at De Land, Fla., on March 2. The funeral was at Naugatuck, Conn., on March 6. Mr. Lewis and his son, Tracy S. Lewis, left Naugatuck on March 8 to return to the south, going to Aiken, S. C. Mr. Tracy Lewis came back to Naugatuck a week ago, and his father probably has returned by this time. The organization of The Beacon Falls Rubber Shoe Co. was postponed to await the return of the latter.

=The register of the Hotel Windsor, New York, at the time of the terrible fire of March 17, contained the names of Mr. J. H. Whittemore, of the new rubber shoe company at Naugatuck, Conn., and his wife, who were on their way home from the South. Their friends were anxious about their fate until it was learned that they had escaped and were safe in another hotel.

=Mr. B. L. Stowe, vice-president of the Eureka Fire Hose Co., after a protracted period of ill health, was able during the latter part of the month to spend a part of each day in his accustomed place at the factory in Jersey City.

=Mr. Fred S. Minott, of the Goodyear Rubber Co., who had been spending the winter in Nassau, arrived at home in time to be present at the death of his father.

=While on a recent trip to the west Mr. R. E. Galleher, of the New York Insulated Wire Co., happened to be traveling upon a train on which Rear Admiral Schley was expected to pass through Pittsburgh. As the train made a stop for a few minutes in that city it was boarded by a local newspaper man who promptly identified the New Yorker as the naval hero and forthwith began to interview him, jotting down a lot of notes before his surprised victim could convince the reporter that a mistake had been made.

=Mr. Samuel N. Williams, treasurer of the Lycoming Rubber Co., has been elected mayor of Williamsport, Pa.

=Mr. Nathaniel C. Videto, who has been nominated by the Republicans to represent his ward in the South Framingham (Mass.) council, is a son of Superintendent T. H. Videto, of the Conant Rubber Co., and is himself in their employ.

=Robert Wilcox, of Chester, Conn., and William Hurd, of East Haddam, Conn., both of whom were recently employed by the Pope Manufacturing Co., have gone to Colombia, with the intention of taking up unclaimed lands, and planting and exporting rubber. They hope to add to their profits by carrying on the business of trading with the natives.

RUBBER SHOE TRADE IN BULGARIA.

A CORRESPONDENT at Rustchuck, Bulgaria, of the Philadelphia Commercial Museum, furnishes the following information regarding the market for rubber overshoes. The importations average between 400,000 and 500,000 francs annually. Nine-tenths of the goods are supplied by two Russian factories, the Cie. Franco-Russe des Caoutchouc "Provodnik," at Riga, and the Russian-American India Rubber Co., at St. Petersburg.

"Although these two companies do their export business through Vienna, which makes their goods very dear," the correspondent continues, "they have already pushed all the other brands out of the market, simply because their manufactures are so good and the sellers grant six and even nine months credit from the date of sale to the wholesale merchants. If it is considered that it takes from two to two and a half months for the goods to arrive it will be seen that the buyers are only really given four months time. Probably this voyage of two and a half months is too long, but it must be remembered that the goods are shipped from St. Petersburg or Riga and that to come here by an all-sea route they have to sail around Europe. There is no reason why American goods could not be sent here even in less time than the goods shipped in this way from Russia. The consumption of rubber boots [evidently meaning overshoes] increases considerably every year. I should judge that the Americans are in a position favorable to competition with the Russians."

Sketches of the styles of boots worn in Bulgaria were forwarded by the correspondent. Three kinds of lining are used: plain red woolen cloth, red woolen flannel with a light fleece, and red woolen flannel with a heavy fleece.

The following are the f. o. b. prices per pair at which sales were made in January of this year, the terms being six months time for payment:

	Francs.	U. S.
MEN'S SHOES.		
Rubber, red flannel lining, light fleece	4.50	$0.86
Rubber, plain lining	3.90	.75
Rubber, inner soles	3.50	.67½
Rubber, medium height, heavy flannel lining	5.25	1.02
Cloth overshoes, heavy lined	7.30	1.41
WOMEN'S SHOES.		
Rubber, flannel lining, light fleece	3.40	.67½
Rubber, plain woolen flannel lining	2.70	.52
Cloth overshoes, heavy lining	6.80	1.31
Girls' rubber, plain cloth, flannel lining	2.30	.44½

Wholesale buyers are allowed a discount of 5 per cent., but the purchasers of small lots are charged full price. Fifty pairs of assorted sizes are put in a case. Men's sizes run from 7 to 15 and the women's from 1 to 7. The average assortment in a case of men's shoes is as follows: Two pairs of No. 7; four of 8; eight of 9; nine of 10; eleven of 11; ten of 12; four of 13, and two of 14; and of women's, two pairs of No. 2; five of 3; fourteen of 4; fifteen of 5; eight of 6, and six of 7.

"I CARE not," said the capitalist, "who makes the laws of the country, so long as I can help form the trusts."—*Life.*

REVIEW OF THE CRUDE RUBBER MARKET.

A FURTHER advance is to be reported in rubber, in spite of large arrivals in the consuming markets and ample stocks in the initial markets. The period since our last report has been without fluctuations for the most part, but about the middle of the month there was something of a spurt in prices, which was of short duration. Quotations at the end of the month, however, are higher than at the beginning. The advance extends to most of the African grades, which have been coming forward in exceptionally large volume.

The Antwerp statistics published herewith are of interest. The monthly sales are now in the neighborhood of 500,000 pounds a month, in spite of which the March sales realized the highest prices on record in that market.

Mail advices from Pará of March 8 read: "The continuation of active demand, notwithstanding abundant supplies and heavy stocks, has been a most remarkable feature, and may be fairly classified as a 'boom.' The transactions for the United States have again been upon a very large scale and have helped to sustain values as well as to give more tone to the market, the outlook at the present time being more favorable than could have been expected about a month ago." A report dated March 13 said: "Considering the large arrivals during the latter part of January and February, it could hardly have been foreseen that the demand would not only assume such extraordinary proportions, but also cause so progressive and rapid an advance in price as has been the case. The volume of business transacted during the last month has been quite unprecedented. and values have gradually attained an exceptionally high figure, The feeling of confidence engendered by the absorption of large stocks and supplies gives no indication that the market is threatened with an early collapse."

The month's arrivals at New York include the two largest cargoes of Pará rubber on record—one of 2,414,100 pounds, by the *Cametense*, on March 7, having a landing value of $2,267,000, and another of 2,315,300 pounds, by the *Dunstan*, on March 22. The previous largest cargoes reaching New York from Pará were those of the *Clement*—1,332,300 pounds—on January 14, 1893, and the *Grangense*—1,768,500 pounds—on February 17, 1898. The largest arrival at Liverpool is believed to have been somewhat less than the cargo of the *Grangense*.

The latest quotations in the New York market are:

PARÁ.		
Islands, fine, new	1.03	
Islands, fine, old	none here	
Islands, coarse, new	72	@73
Islands, coarse, old	none here	
Upriver, fine, new	104	@105
Upriver, fine, old	105	@106
Upriver, coarse, new	87	@88
Upriver, coarse, old	none here	
Caucho (Peruvian) sheet	70	@71
Caucho (Peruvian) strip	72	@73
Caucho (Peruvian) ball	82	@83
AFRICAN.		
Tongues	64	@65
Sierra Leone	none here	
Benguella	75	@76
Congo ball	66	@67
Cameroon ball	64	@65
Flake and lumps	48	@49
Accra flake	28	@30
Accra buttons	69	@70
Accra strips	71	@72
Lagos buttons	68	@69
Lagos strips	68	@70
Liberian flake		@
Madagascar, pinky	85	
Madagascar, black	none here	
CENTRALS.		
Esmeralda, sausage	77	@78
Guayaquil, strip	63	@68
Nicaragua, scrap	77	
Mangabeira, sheet	64	@65
EAST INDIAN.		
Assam	84	
Borneo	40	@54
GUTTA-PERCHA.		
Fine grade		1.50
Medium		1.30
Hard white		1.00
Lower sorts		50
Balata		

Late Pará cables quote:

	Per Kilo.		Per Kilo.
Upriver, fine	12$800	Islands, fine	11$000
Upriver, coarse	10$200	Islands, coarse	6$700

Exchange 6 11/16 *d.*

STATISTICS OF PARA RUBBER.

Following is a comparison for corresponding periods of three years, the figures denoting tons of 1000 kilograms:

NEW YORK.

	Fine and Medium.	Coarse.		Totals. 1899.	Totals. 1898.	Totals. 1897.
Stocks, January 31.....	314	36	=	350	318	353
Arrivals, February.....	931	442	=	1373	1604	1559
Aggregating.....	1245	478	=	1723	1922	1912
Deliveries, February.....	922	393	=	1315	1580	1419
Stocks, February 28...	323	85	=	408	342	493

	PARÁ.			ENGLAND.		
	1899.	1898.	1897.	1899.	1898.	1897.
Stock, January 31.....	1009	1140	1302	800	692	1215
Arrivals, February....	4700	2680	2800	460	738	940
Aggregating.....	5709	3820	4102	1260	1430	2155
Deliveries, February..	3484	3290	3242	525	850	950
Stocks, Feb. 28...	2225	530	860	735	580	1205

	1899.	1898.	1897.
World's supply, Feb. 28 (excluding Caucho)..	5543	3403	4347
Pará receipts, July 1 to February 28.....	18,915	17,430	17,250
Afloat from Pará to United States, Feb. 28....	1055	—	—
Afloat from Pará to Europe, February 28.....	1120	—	—

NEW YORK RUBBER PRICES FOR FEBRUARY.

	1899.	1898.	1897.
Upriver fine..	1.00 @1.04	89½@95	82 @84
Upriver coarse	86 @ 92	71 @75	52½@55
Islands fine.....	99 @1.01	88 @93	80 @82
Island coarse	69 @ 73	60 @65	44½@46
Cametá coarse	71 @ 74	61½@70	51 @52

In regard to the financial situation, Albert B. Beers (broker in India-rubber and commercial paper, No. 58 William street, New York) advises us as follows:

"During March the money market has ruled easy and steady, with a good demand for commercial paper, the best rubber names being taken at 4@4½ per cent. and those not so well known at 5@6 per cent. Out of town banks have been pretty generally in the market, as well as those in the city."

THE ANTWERP RUBBER MARKET.

At the inscription sales on March 14 the following prices were obtained for some of the more important lots, as reported for The India Rubber World by E. Karcher & Co.:

Lots.	Kilos.	Description.	Valuation.	Paid.
131	5,004	Conakry niggers and twists...	fr. 7.85	fr. 8.15
133	1,548	Conakry red, No. 1	9.25	9.25
137	12,582	Upper Congo, Lopori.....	10.25	10.70
138	1,626	Congo, Wamba, thimbles.....	7.85	8.27½
141	10,376	Congo, Kassai, red twists.....	10.20	10.57½
142	3,594	Congo, Kassai, red twists, No. 2	9.90	10.15
152	3,300	Cassamance, large balls, No. 1	7.80	8.05
153	2,200	Cassamance, large balls, Nos. 2–3	7.50	7.60
154	1,874	Bissao Foulah.....	7.00	7.02½
157	1,602	Bissao Balante.....	6.75	6.87½
161	20,500	Upper Congo, Bussira.....	10.20	10.25
162	12,936	Upper Congo, Kassai red twists, No. 1	10.20	10.55
163	3,466	Upper Congo, Kassai red, No. 2	9.95	10.15
164	7,460	Upper Congo, Kassai red, Nos. 3–4	8.50	8.52½
173	9,056	Lower Congo, red thimbles....	5.85	6.25
175	7,508	Upper Congo, Lake Leopold, No. 2	8.60	9.10
176	2,737	Upper Congo, Bangui balls...	8.90	9 40
177	14,571	Upper Congo, Bangui balls...	8.90	9.40
178	13,000	Upper Congo, Equateur.....	9.85	10.37½
	32,032	Upper Congo, Equateur.....	9.85	10 22½
179	8,029	Upper Congo, Mongalla strips	8.55	9.05
182	10,900	Upper Congo, Mongalla mixed	9.35	9.50
183	1,700	Upper Congo, Mongalla balls..	8.77½	9.27½
184	7,000	Upper Congo, Mongalla large ball	9.20	9.40
	8,181	Upper Congo, Mongalla large ball	9.20	9.30
185	8,575	Upper Congo, Aruwimi ball...	8.65	9.22½
187	2,054	Upper Congo, Aruwimi, ordinary	8.85	9.22½
188	3,590	Upper Congo, Yakoma.....	9.35	9.62½
189	5,887	Upper Congo, Uellé	9.70	10.15

The offerings of Congo sorts amounted to 202,650 kilograms; sales, 202,650. Other offerings amounted to 25,000 kilograms sales, 22,000.

C. Schmid & Co. advise The India Rubber World of the arrival at Antwerp by the steamer *Leopoldville*, of about 204 tons of rubber from the Congo, against 146 tons during March, 1897.

ANTWERP RUBBER STATISTICS (KILOGRAMS).

[*Supplied by* C. Schmid & Co.]

Details.	1899.	1898.	1897.	1896.	1895.
Stocks, January 31, 1898....	298,511	91,704	120,453	71,598	52,135
Arrivals, February	226,031	233,597	84,958	48,232	26,591
Total.....	524,542	325,301	205,411	119,830	78,726
Sales in February	274,231	94,549	19,668	71,522	14,834
Stocks, February 28.... ...	250,311	230,752	185,743	48,308	63,892
Arrivals since January 1	511,864	320,934	210,269	91,853	61,990
Sales since January 1.....	524,893	184,645	184,154	132,399	37,530

IMPORTS FROM PARA AT NEW YORK.

March 7.—By the steamer *Cametense*, from Manáos and Pará:

Importers.	Fine.	Medium.	Coarse.	Caucho.	Total
New York Commercial Co.	377,600	45,500	117,900	34,200=	575,200
Crude Rubber Co...	412,900	59,800	82,700	21,200=	576,600
Reimers & Meyer.....	262,900	48,600	132,700	.....=	444,000
Boston Rubber Shoe Co..	102,800	20,000	36,500	.....=	159,300
Otto G. Mayer & Co	108,100	13,300	21,800	78,000=	221,200
Albert T. Morse & Co....	54,300	8,600	28,200	47,700=	138,800
Lawrence Johnson & Co..	38,000	8,600	17,200	32,000=	95,800
American Wringer Co....	32,700	3,600	9,400	.....=	45,700
Joseph Banigan.....	26,100	4,500	14,500	. ...=	45,100
Edmund Reeks & Co.....	22,600	3,000	13,600	4,500=	43,700
William Wright & Co....	.....	.....	34,000	.....=	34,000
Peerless Rubber Mfg. Co.	.....	.....	22,800	.....=	22,800
George G. Cowl.....	5,000	700	700	.....=	6,400
Hagemeyer & Brunn.....	1,800	.... .	3,500	.....=	5,300
Total.....	1,444,800	216,200	535,500	217,600=	2,414,100

March 22.—By the steamer *Dunstan* from Pará:

Crude Rubber Co.....	487,900	68,900	118,700	7,400=	682,900
New York Commercial Co.	563,100	43,600	116,300	21,400=	644,400
Reimers & Meyer.....	208,800	18,500	96,800	42,000=	366,100
Boston Rubber Shoe Co..	142,100	9,600	6,800	.....=	158,500
Otto G. Mayer & Co.....	58,100	7,000	10,200	21,800=	97,100
Albert T. Morse & Co....	15,900	3,300	54,700	.....=	73,900
Edward Reeks & Co.... .	42,300	5,400	20,800	.....=	68,500
Joseph Banigan	42,600	5,400	6,800	.....=	54,800
American Wringer Co....	12,500	4,300	28,400	.....=	45,200
William Wright & Co....	14,600	1,400	25,400	.....=	41,400
Lawrence Johnson & Co .	8,100	3,000	20,300	6,100=	37,500
Hagemeyer & Brunn.....	12,600	.....	9,600	.....=	22,200
Peerless Rubber Mfg. Co.	.....	.....	22,800	.....=	22,800
Total... ...	1,508,600	170,400	537,600	98,700=	2,315,300

March 27.—By the steamer *Origen* from Manáos and Pará:

Reimers & Meyer.....	287,500	49,300	106,500	88,800=	532,100
New York Commercial Co	326,900	26,300	70,900	73,400=	497,500
Crude Rubber Co.....	173,900	28,100	31,400	2,800=	236,200
Albert T. Morse & Co...	92,800	13,600	70,500	6,400=	183,300
Boston Rubber Shoe Co..	104,500	14,500	17,200	.....=	136,200
Lawrence Johnson & Co.	57,000	11,000	14,900	.....=	82,900
American Wringer Co....	14,600	2,600	7,100	.....=	24,300
Kunhardt & Co.....	13,500	5,200	....	.....=	18,700
Otto G. Mayer & Co.....	9,600	1,000	1,200	6,500=	18,300
Hagemeyer & Brunn	10,300	.....	2,900	.....=	13,200
George G. Cowl.....	5,400	600	1,500	.....=	7,500
Total.....	1,096,000	152,200	324,100	177,900=	1,750,200

[The steamer *Hilary* sailed from Manoás on March 17, with 155 tons of rubber on board for New York, and the steamer *Fresco* from Pará, on March 23, with 137 tons. The *Hilary* reached New York March 30.]

PARA RUBBER VIA EUROPE.

	POUNDS.	
FEB 25.—By the *Britannic*=Liverpool:		
Reimers & Meyer (Fine)	6,200	
Reimers & Meyer (Coarse)	2,400	8,600
FEB. 27.—By the *Umbria*=Liverpool:		
George A. Alden & Co. (Fine and Medium)	24,000	
Crude Rubber Co. (Fine and Medium)	23,000	
Reimers & Meyer (Coarse)	15,000	62,000
MARCH 4.—By the *Lucania*=Liverpool:		
George A. Alden & Co. (Fine and Medium)	6,500	
Crude Rubber Co. (Fine and Medium)	5,500	12,000
MARCH 11.—By the *Etruria*=Liverpool:		
A. T. Morse & Co. (Fine & Medium)	11,000	
A. T. Morse & Co. (Coarse)	11,500	
Reimers & Meyer	11,500	34,000
MARCH 16.—By the *Teutonic*=Liverpool:		
George A. Alden & Co. (Fine)	17,000	
Crude Rubber Co. (Fine)	16,000	33,000
MARCH 18.—By the *Campania*=Liverpool:		
William Wright & Co. (Coarse)	6,000	
Reimers & Meyer (Coarse)	3,000	9,000
MARCH 25.—By the *Cymric*=Liverpool:		
George A. Alden & Co. (Fine and Medium)	16,000	
Crude Rubber Co. (Fine and Medium)	15 000	
A. T. Morse & Co. (Fine and Medium)	31,000	62,000

OTHER ARRIVALS AT NEW YORK.

CENTRALS.

	POUNDS.	
FEB. 20.—By the *Palatia*=Hamburg:		
Reimers & Meyer	16,500	
George A. Alden & Co.	4,000	20,500
FEB. 25.—By the *Lydia*=Mexico:		
H. Marquardt & Co.	2,500	
L. Monjo, Jr., & Co	1,000	
Thebaud Brothers	300	3,800
FEB. 27.—By the *Louisiana*=New Orleans:		
A. T. Morse & Co	31,000	
A. N. Rotholz	1,500	32,500
FEB. 27.—By the *Umbria*=Liverpool:		
Otto G. Mayer & Co		11,500
FEB. 28.—By the *Alene*=Greytown:		
D. A. De Lima & Co	15,800	
Andreas & Co	5,000	
Punderford & Co	4,000	
Park, Son & Co	1,000	
A. P. Strout	1,500	
Kunhardt & Co	800	
Guiterman, Rosenfeld & Co	800	
A. D. Straus & Co	600	
Mecke & Co	500	
For Bremen	1,000	31,000
MARCH 1.—By the *Finance*=Colon:		
Flint, Eddy & Co	4 374	
G. Amsinck & Co	3,726	
Lanman & Kemp	2,704	
Andreas & Co.	1,938	
J. Aparicio & Co	1,050	
Jacob Baiz	987	
D. A. De Lima & Co	688	15,467
MARCH 3.—By the *Pennsylvania*=Hamburg:		
George A. Alden & Co.		3,500
MARCH 4.—By the *Concho*=Mexico:		
E Steiger & Co.	4,000	
Thebaud Brothers	1,000	
Graham, Hinckley & Co.	4,500	
L. Matheson & Co	200	
For Hamburg	500	10,200
MARCH 7.—By the *S. D. Fell*=Pernambuco:		
Allerton D. Hitch		11,000
MARCH 8.—By the *Bogstad*=Mexico:		
E. Steiger & Co	3,200	
H. Marquardt & Co	3,000	
H. W. Peabody & Co	1,000	
L. N. Chemedlin	1,000	8,200
MARCH 8.—By the *Allianca*=Colon:		
Hirzel, Feltman & Co	16,155	
Roldan & Van Sickle	13,450	
A. Santos & Co	12,042	
Dumarest & Co	7,891	
Isaac Brandon & Bro	7,739	
Piza Nephews & Co	5,577	
G. Amsinck & Co	5,340	
Flint, Eddy & Co	4,348	
Crude Rubber Co	4,303	
W. R. Grace & Co	3,400	
Frame, Alston & Co	2,188	
J. Aparicio & Co	2,234	
Kunhardt & Co	2,038	
M. Valverde & Co	2,024	
Otto Gerdan	1,200	
Ellinger Brothers	1,106	
Lanman & Kemp	881	
Eimenhorst & Co	520	
F. Nicto & Co	540	
Ascensio & Cassio	520	
A. Jimenez & Co	372	
D. N. Carrington	197	
A. M. Capen Sons	183	
Mecke & Co	142	94,330
MARCH 8.—By the *Alleghany*=Cartagena:		
Kunhardt & Co	7,500	
Park, Son & Co	5,500	
H. W. Peabody & Co	3,500	
D. A. De Lima & Co	2,500	
Flint, Eddy & Co.	1,500	
Roldan & Van Sickle	1,200	
A. N. Rotholz	600	
Punderford & Co	400	
G. Amsinck & Co	300	23 000
MARCH 11.—By the *Orizaba*=Mexico:		
E. N. Tibbals	1,000	
F. Probst & Co	1,000	
E. Steiger & Co	1 000	
H. Marquardt & Co	1,000	
P. Harmony Nephew & Co	500	4,500
MARCH 13.—By the *Arcadia*=Hamburg:		
George A. Alden & Co		3,500
MARCH 13.—By the *Ardandhu*=Belize:		
Eggers & Heinlein	7,000	
Samper & Co	1,200	
For London	1,800	10,000
MARCH 13.—By the *Coleridge*=Pernambuco:		
Lawrence Johnson & Co	5,000	
Reimers & Meyer	1,500	6,500
MARCH 14.—By the *Altai*=Savanilla:		
G. Amsinck & Co	7,500	
Flint, Eddy & Co	7,000	
J. H. Lang	3,500	
Kunhardt & Co	2,700	
H. W. Peabody & Co	1,500	
Roldan & Van Sickle	1,200	
A. P. Strout	1,000	
Park Son & Co	700	
Guiterman, Rosenfeld & Co	600	
For Europe	2,500	28,200
MARCH 16.—By the *Advance*=Colon:		
Kunhardt & Co	4,244	
Flint, Eddy & Co	4,139	
Lanman & Kemp	2 674	
J. Aparicio & Co	2,350	
Theodore Herrmann	2,259	
Eggers & Heinlein	1,888	
G. Amsinck & Co.	544	
Eimenhorst & Co	425	18,523
MARCH 18.—By the *El Dorado*=New Orleans:		
A. T. Morse & Co		13,500
MARCH 18.—By the *Campania*=Liverpool:		
Reimers & Meyer		7,500
MARCH 22.—By the *Adirondack*=Cartagena:		
D. A. De Lima & Co.	5,000	
Flint, Eddy & Co	2 500	
Andreas & Co	1,500	
Kunhardt & Co	1,200	
Guiterman, Rosenfeld & Co	800	
Roldan & Van Sickle	500	
Mecke & Co	500	
Ellinger Brothers	300	
Markt & Co.	300	
For Antwerp	800	13,400
MARCH 23.—By the *Yucatan*=Mexico:		
E. Steiger & Co	5,000	
Graham, Hinckley & Co	4,000	
E. N. Tibbals	1,000	
H. Marquardt & Co	500	10,500
MARCH 22.—By the *Finance*=Colon:		
Isaac Brandon & Bros	4,186	
H. W. Peabody & Co	3,742	
Crude Rubber Co	3,589	
A. P. Strout	2,752	
Flint, Eddy & Co	1,633	
G. Amsinck & Co.	1,339	
Piza Nephews & Co	1,227	
Eggers & Heinlein	1,035	
H. Marquardt & Co	950	
D. N. Carrington	716	
Pomares & Cushman	100	21,669
MARCH 23.—By the *Europe*=London:		
Reimers & Meyer		4,000

AFRICANS.

	POUNDS.	
FEB. 20.—By the *Patria*=Hamburg:		
George A. Alden & Co	30,000	
Reimers & Meyer	42,000	72,000
FEB. 23.—By the *Menominee*=London:		
Otto G. Mayer & Co		4,000
FEB. 25.—By the *British Queen*=Antwerp:		
Reimers & Meyer	8,000	
Otto G. Mayer & Co	8,000	16,000
FEB. 25.—By the *Britannic*=Liverpool:		
George A. Alden & Co	22,000	
Crude Rubber Co	22,000	44 000
FEB. 25.—By the *Phœnicia*=Hamburg:		
George A. Alden & Co	13,000	
Crude Rubber Co	11,000	
Reimers & Meyer	82,000	106,000
FEB. 27.—By the *Umbria*=Liverpool:		
George A. Alden & Co	7,000	
Crude Rubber Co	7,000	
Joseph Banigan	19,000	
Reimers & Meyer	51,000	
Otto G. Mayer & Co	6,000	
Joseph Cantor	4,000	94,000
FEB. 28.—By the *Friesland*=Antwerp:		
Albert T. Morse & Co	95,000	
George A. Alden & Co	11,000	
Crude Rubber Co	10,000	116,000
MARCH 1.—By the *Southwark*=Antwerp:		
George A. Alden & Co	65,000	
Crude Rubber Co	63,000	
Joseph Cantor	16,000	144,000
MARCH 2.—By the *Majestic*=Liverpool:		
Crude Rubber Co	11,000	
Livesey & Co	7,000	
William Wright & Co	3,000	21,000
MARCH 3.—By the *Pennsylvania*=Hamburg:		
George A. Alden & Co	30,000	
Reimers & Meyer	7,000	37,000
MARCH 4.—By the *Lucania*=Liverpool:		
Reimers & Meyer	61,000	
Otto G. Mayer & Co	17,000	
Livesey & Co	15,000	93,000
MARCH 4.—By the *Werkendam*=Rotterdam:		
Reimers & Meyer		11,500
MARCH 6.—By the *Dona Maria*=Lisbon:		
Reimers & Meyer	150 000	
George A. Alden & Co	80,000	
Crude Rubber Co	75,000	
A. T. Morse & Co	40,000	
Otto G. Mayer & Co	11,000	356,000
MARCH 8.—By the *Vega*=Lisbon:		
George A. Alden & Co.	108,000	
Crude Rubber Co	106,000	
Reimers & Meyer	46,000	
Albert T. Morse & Co	22,500	280,500
MARCH 8.—By the *Westernland*=Antwerp:		
George A. Alden & Co	35,000	
Crude Rubber Co	35,000	
Reimers & Meyer	48,000	
Albert T. Morse & Co	17,000	
Canadian Rubber Co	5,000	140,000
MARCH 11.—By the *St. Paul*=Southampton:		
Otto G. Mayer & Co	11,500	
Reimers & Meyer	11,500	23,000
MARCH 11.—By the *Brasilia*=Hamburg:		
George A. Alden & Co	4,000	
Canadian Rubber Co	2,000	6,000
MARCH 22.—By the *Nomadic*=Liverpool:		
George A. Alden & Co	34,000	
Crude Rubber Co	33 500	
Otto G. Mayer & Co	30,000	
Reimers & Meyer	10,000	107,500
MARCH 23.—By the *Pisa*=Hamburg:		
Albert T. Morse & Co		13,000
MARCH 23.—By the *Europe*=London:		
Reimers & Meyer		5,000
MARCH 25.—By the *Cymric*=Liverpool:		
George A. Alden & Co	50,000	
Crude Rubber Co	45 000	
William Wright & Co	30,000	
J. Banigan	11,000	
Otto G. Mayer & Co	12,000	
Fincham, Bretton & Co	20,000	
A. T. Morse & Co	5,000	173,000
MARCH 27.—By the *Umbria*=Liverpool:		
George A. Alden & Co	22,000	
Crude Rubber Co	20,000	
William Wright & Co	30,000	
Reimers & Meyer	85,000	157,000
MARCH 18.—By the *Campania*=Liverpool:		
Reimers & Meyer—Almedina		1,500

EAST INDIAN.

	POUNDS.	
Feb. 25.—By the *Hausa*=Singapore:		
Reimers & Meyer (Pontianak)	109,000	
J. W. Greene & Co. (Pontianak)	48,000	
George A. Alden & Co. (Pontianak)	20,000	177,000
March 1.—By the *Marquette*=London:		
Albert T. Morse & Co.		12,000
March 3.—By the *Pennsylvania*=Hamburg:		
George A. Alden & Co.		4,000
March 6.—By the *Mesaba*=London:		
Robert Soltau & Co.	30,000	
Reimers & Meyer	11,000	
Albert T. Morse & Co	11,500	52,500
March 11.—By the *St. Paul*=Southampton:		
Reimers & Meyer		8,500
March 14.—By the *Manitou*=London:		
Otto G. Mayer & Co.		6,000
March 23.—By the *Europe*=London:		
D. P. Cruikshank		15,000
March 24.—By the *Menominee*=London:		
R. Soltau & Co		30,000

GUTTA-PERCHA.

	POUNDS.
Feb. 23.—By the *Amsterdam*=Rotterdam:	
Robert Soltau & Co	31,000
Feb. 25.—By the *Hausa*=Singapore:	
R. Brauss	2,300
March 1.—By the *Marquette*=London:	
Lamb Manufacturing Co	2,400
March 4.—By the *Werkendam*=Rotterdam:	
Robert Soltau & Co.	8,500
March 11.—By the *St. Paul*=Southampton:	
Lamb Manufacturing Co.	2,500
March 13.—By the *Arcadia*=Hamburg:	
Robert Soltau & Co	4,600

CUSTOM-HOUSE FIGURES.

PORT OF NEW YORK—FEBRUARY.

Imports:	POUNDS.	VALUE.
India-rubber	4,949,129	$3,293,276
Gutta-percha	36,264	4,939
Gutta-jelatong (Pontianak)	423,006	9,431
Total	5,408,399	$3,307,646
Exports:		
India-rubber	484	$ 242
Reclaimed rubber	92,204	9,787

BOSTON ARRIVALS.

	POUNDS.
Feb. 1—By the *New England*=Liverpool:	
Livesey & Co.—Africans	16,344
Coarse Pará	11,221
Feb. 2.—By the *Cestrian*=Liverpool:	
George A. Alden & Co.—Centrals	7,829
Feb. 4.—By the *Kansas*=Liverpool:	
Livesey & Co.—Centrals	1,801
Reimers & Meyer—Africans	37,275
Feb. 6.—By the *Bay State*=Liverpool:	
Reimers & Meyer—Africans	9,692
Feb. 9.—By the *Baltimore*=London:	
George A. Alden & Co.—East Indian	16,419
Reimers & Meyer—East Indian	9,959
Feb. 15.—By the *Sachem*=Liverpool:	
Reimers & Meyer—Africans	24,359
Livesey & Co.—Africans	18,025
George A. Alden & Co.—Africans	5,693
Feb. 15.—By the *Carnithia*=Liverpool.	
Reimers & Meyer—Africans	21,392
Feb. 16.—By the *Canada*=Liverpool:	
Livesey & Co.—Africans	2,337
Feb. 17.—By the *London City*=London:	
Reimers & Meyer—East Indian	18,941
Feb. 18.—By the *Strathtay*=Hamburg:	
George A. Alden & Co.—Bolivian	6,789
Feb. 18.—By the *Sagamore*=Liverpool:	
Livesey & Co.—Africans	27,025
Reimers & Meyer—Africans	20,873
Feb. 18.—By the *H. M. Whitney*=New York:	
Boston Rubber Shoe Co.—Africans	13,302
[Included in New York arrivals—by the *Kensington*, from Antwerp—Feb. 10.]	
Feb. 20.—By the *Anglian*=London:	
Reimers & Meyer—East Indian	7,273
Feb. 21.—By the *Cephalonia*=Liverpool:	
Livesey & Co.—Africans	7,553
Feb. 23.—By the *Norseman*=Liverpool:	
Livesey & Co.—Africans	2,392
Feb. 24.—By the *Cambroman*=Liverpool:	
Reimers & Meyer—Africans	17,674
George A. Alden & Co.—Africans	9,228
Livesey & Co.—Africans	10,570

	POUNDS.	VALUE.
Total for February	317,936	$197,523
Total for January	247,345	147,488

GUTTA-PERCHA.

Feb. 1.—By the *Sylvania*=Liverpool:	
George A. Alden & Co	2,204

NEW ORLEANS.

FEBRUARY.

	POUNDS.	VALUE.
From Nicaragua	33,624	$24,604

FEBRUARY EXPORTS OF INDIA-RUBBER FROM PARA.

[Note.—The figures denote weights in Kilograms.]

EXPORTERS.	UNITED STATES.					EUROPE.					TOTAL.
	FINE.	MEDIUM.	COARSE.	CAUCHO.	TOTAL.	FINE.	MEDIUM.	COARSE.	CAUCHO.	TOTAL.	
Pusinelli, Prüsse & Co.	199,410	34,000	137,720	—	371,130	60,180	5,780	8,340	32,400	106,700	477,830
Adelbert H. Alden	276,399	38,730	120,825	17,700	453,654	47,260	5,440	20,680	7,200	80,580	534,234
The Sears Pará Rubber Co.	237,318	37,230	69,930	8,840	352,958	—	—	—	—	—	352,958
La Rocque da Costa & Co.	60,970	10,460	91,942	60,620	223,992	39,424	8,118	12,854	23,628	84,024	308,016
Rudolf Zietz	48,000	5,921	7,020	—	60,941	63,086	7,340	17,096	717	88,239	149,180
Velhote, Silva & Co.	—	—	—	—	—	50,490	4,250	13,240	—	67,980	67,980
Denis Crouan & Co	17,510	2,380	29,680	—	49,570	7,650	1,020	—	—	8,670	58,240
York Lajeunesse	—	—	—	—	—	24,000	3,040	16,920	—	43,960	43,960
H. A. Astlett	16,978	4,739	11,260	—	32,977	—	—	—	—	—	32,977
R. Suarez	—	—	—	—	—	14,690	1,360	1,495	—	17,545	17,545
Singlehurst, Brocklehurst & Co.	—	—	—	—	—	5,211	1,563	4,019	—	11,193	11,193
Pires, Teixeira & Co.	2,020	—	2,100	—	4,120	—	—	—	—	—	4,120
Kanthack & Co.	—	—	—	—	—	132	—	79	1,190	1,401	1,401
Sundry small shippers	—	—	—	—	—	—	—	—	3,145	3,145	3,145
Direct from Manáos	284,062	51,727	93,484	23,435	452,708	447,914	93,585	130,946	146,382	818,827	1,271,535
Total for February	1,142,667	185,187	563,961	110,235	2,002,050	760,437	131,496	225,669	214,662	1,332,264	3,334,314

LOEWENTHAL & MORGANSTERN

Manufacturers of RECLAIMED RUBBER

280 BROADWAY

TELEPHONES.
2213 FRANKLIN, N.Y.
372 JERSEY CITY.

CABLE ADDRESS.
APACHE, N.Y.

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